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BETTERMENT

BETTERMENT

INDIVIDUAL, SOCIAL, AND INDUSTRIAL

OR

HIGHEST EFFICIENCY THROUGH THE GOLDEN RULES OF RIGHT NUTRITION; WELFARE WORK; AND THE HIGHER INDUSTRIAL DEVELOPMENTS

BY

E. WAKE COOK

NEW YORK
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PREFACE

THE object of this work is to give in convenient form the latest discoveries which promote individual, industrial, and collective efficiency. The chapters on health and training all tend to the "Simple Life," and recall suffering humanity to the care of the best physician in the world — Nature. The simple rules given should, if followed, be worth a considerable increase of income to rich and poor alike. They will bring new joy to life, a lessening of its cost, immunity from disease, and a great increase in mental and physical energy. Should disease, through previous ignorance or faulty practice, get its doctor-baffling grip on a person, the "Heroic Cure" or the "Nature Cure" offers the cheapest and most effectual remedy yet discovered. It not only costs nothing, but, on the principle that money saved is money gained, it puts money into the pocket constantly, and the means and the physician are always at hand.

In treating of industrial matters I give as far as possible the views not of armchair theorists, but of practical men, — the great organisers who have come to grips with

realities. Among the higher industrial developments the "Suggestion System" seems to me a priceless discovery, and its general adoption cannot be too strenuously urged.

The latest developments of what is called "Welfare Work" are so impressive that they turn the dismal pessimist into a cheery optimist. To think of the old factories, smoke-begrimed in a wilderness of rubbish heaps; and then to see the model factories that are rising everywhere, crystal palaces set in flowery pleasances, transforming their surroundings and radiating perfection, we feel that what were formerly Utopian dreams are now being realised. Another encouraging development is the fact that what was formerly high philanthropic work is now found to pay and is good business. Hence its general adoption is only a question of time.

The success of such institutions as the National Civic Federation, with its headquarters in New York, is most inspiring. They aim at bringing Labour and Capital together for developing the interests they have in common, and enabling them to look at the great problems from each other's standpoint. This widening of the outlook is the half-way house towards reconciliation.

The practical efforts that are being made to bring the interests of Capital and Labour into line are also most encouraging. All these movements are so complex and far-reaching that by the time we have studied them exhaustively new developments have occurred, and our information is a "back number." To grasp them all in full detail is impossible, and to go too deeply into one or two is to exaggerate their importance and to throw them out of relation with other equally important movements. So my aim has been to give a general outline of the most hopeful means yet discovered for promoting individual and collective betterment, with sufficient detail to interest the general reader and to enable him to put them into practice.

I am under a heavy debt of obligation to all those who have aided me with valuable information. With Mr. Fletcher's invaluable work I am in closest touch. It came to me at the psychological moment when I was in despair, believing that my working days were ended, and it gave me a new lease of life, as it has done to many others in like condition. The rapid spread of the knowledge of his discoveries, with the scientific endorsement they are receiving, is one of the greatest regenerating

forces of the time; and to him and his able co-worker, Dr. Van Someren, I tender my grateful thanks.

To Mr. A. A. Thomas, the able and courteous legal adviser and secretary of the Company that has built up the "Model Factory of the Gem City" (Dayton, Ohio), I am indebted for masses of matter bearing on the Company's own work and that of other firms in bettering the conditions of labour. He also directed me to other sources of information; stated the larger problems that are engaging the best minds in the industrial world; gave me many of the most statesman-like views that have been expressed about them, and his own mature thoughts on these burning questions. These have aided me greatly to obtain the inside view. Those who have to handle affairs practically see them very differently from the outside philosopher.

To Miss Gertrude Beeks, the able secretary of the Welfare Department of the National Civic Federation, New York, I am much indebted for valuable up-to-date information readily and courteously given. To many managers, heads of departments, and secretaries of industrial organisations in England, America, and on the Continent I offer my thanks for

valuable information bountifully given with unfailing courtesy.

To students of sociology, economics, and industrial questions I would specially commend the Solvay Institute at Brussels. It is splendidly organised on a most comprehensive plan. There are laboratories for all branches of science bearing on these subjects. All forms of information are systematically collected and tabulated; and there is a splendid library containing all the latest works in every language on these questions, arranged to perfection. Everything that forethought and a true knowledge of writers and their ways can suggest is done for their comfort. The whole is under the directorship of M. Waxweiler, a man of high distinction. This fine institution is a living monument to the still, happily, living M. Ernest Solvay, whose own writings are full of deep thought and valuable suggestions, some of which will be found in the following pages. My great regret is that I have not been able, owing to lack of space, to make fuller use of them and of the great masses of information placed at my service by so many helpful hands.

CONTENTS

PART I

Chapter		Page
I.	Industrial-Statecraft — Harmonising the Interests of Capital and Labour	1
II.	Efficiency	8
III.	Training — Capacity Culture	28
IV.	Health — Wealth	39
V.	The Golden Rules of Right Nutrition	50
VI.	The Question of Quantity: the Minimum the Optimum	68
VII.	The Heroic Cure	104
VIII.	Rational Exercise	125

PART II

IX.	The Higher Industrial Developments	142
X.	Moralising Business Methods	155
XI.	A Model Factory	164
XII.	Fruitage	185
XIII.	Those Amazing Americans	191

PART III

Chapter		Page
XIV.	Welfare Work	194
XV.	"Welfare Work is Practical Religion"	206
XVI.	The Housing Problem	241
XVII.	The Housing Problem in the United States	261
XVIII.	Thrift and Old Age Pensions	281
XIX.	The Ultimate Problem	295
XX.	Conclusion	318

APPENDICES

A. "Studies in Character Building" . . . 332

B. The Need of a Legion of Honour in America 336

C. A New and Workable Scheme of Land Nationalisation 341

D. Ministers of Humanity: An Interesting Experiment in School Management . . . 346

BETTERMENT

PART I

CHAPTER I

INDUSTRIAL-STATECRAFT — HARMONISING THE INTERESTS OF CAPITAL AND LABOUR

NIAGARAS of force have been running to waste since the world began, awaiting the inspired engineer to transform them into light and power. Human forces are in constant conflict, or are pulling in opposite directions and nullifying one another. But when the inspired organiser appears, he trains these cancelling forces into union, and we have the force of an army instead of the confused and impotent struggle of a mob.

Many of the conflicts between capital and labour are disastrous waste of force which statesman-like insight on both sides would save. A natural impatience of the slow march of progress induces labour to grasp at immediate results without seeing that victory may bring greater disasters than defeat. An immediate rise in wages may mean the ultimate ruin of the employer and the particular trade

by allowing the markets to be captured by rival states or countries. On the other hand capital, in greedy haste for gain, may be equally shortsighted, and provoke paralysing conflict or organised preparation for conflict which by its standing menace may handicap the employer in the war of industrial competition.

Working ideals we must have, and even when they are Utopian they may be helpful and stimulating if rightly used. They are splendid driving forces when the conditions are realised and the right steps taken. For instance, shorter hours for labour are in every way desirable, but if these are granted in one country, while the others continue the long hours, that country will be so handicapped in competition that its trade may be ruined and the workers thrown out of employment.

Ready employment for all willing workers is eminently desirable, but if we attempt to attain this by limiting the output, so that more men are employed, we shall so increase the cost of the product that the trade may be destroyed or pass to the foreigner. But this is not the only disaster that may overtake the attempt to attain a good end by shortsighted means. To limit the output by the wage-

worker is essentially dishonest, and if generally practised would destroy the morale of the whole industrial community. It would demoralise the worker, breed laziness and inefficiency, and start him on the down-grade to dissolute worthlessness. So, in trying to increase the amount of employment by limiting the output, the worker may demoralise himself and the trade, throw the whole staff out of employ, and thus commit quicker or slower suicide. These simple and obvious illustrations show how dangerous it is to strive for right ends by wrong means, or to try short-cuts that are generally the longest way round.

The dominant factor to-day is the ruthless competitive war in which the whole industrial world is engaged, and to fail in it may be a greater calamity than to be overcome in actual war. France suffered a terrible defeat at the hands of Germany, was mulct in millions of money, and shorn of two provinces; but these losses only served to bring out the virtues of her people and her wonderful powers of recuperation. To-day she is as bright and prosperous as ever and in the front rank of civilisation; but had she been as dependent on foreign trade as the English are, and had

Germany killed or captured her foreign trade, she would have been in a much worse plight. Masses of the people would have been driven from their beloved country, or have been starved, and France would have been reduced to the rank of a third or fourth rate power.

This commercial war is interminable, admitting of no periods of peace; and no Peace Congress can save us from it. Recognising this, we know how we stand, — we know the essential conditions of success and the awful penalties of failure. So employers and employed are virtually an army in war time, and a strike may be as fatal to all concerned as a mutiny of soldiers in the face of an enemy. From this point of view the capital and labour of any country have many interests in common. The growing recognition of this fact is one of the most hopeful signs of the times. Institutions like the National Civic Federation of New York, which aims at bringing capital and labour together to consider the problems confronting both, and which tries to look at these problems from a national rather than a sectional standpoint, are the most promising agencies of industrial betterment.

Modern commercial competition is so analogous to actual war that the conditions of

success are manifest. They are: thoroughness of organisation, discipline, brains, alertness, energy, and general efficiency. Hitherto the organisation of material forces has sufficed, but brains count for more than muscle, and one of the most wonderful of the "Model Factories" of America has been well called "A 5,000 Brain-Power Organisation." This marks a new epoch, a higher stage in evolution; the organisation of brains, of intelligence, is a new departure which will have powerful and far-reaching effects.

There is a tide in the affairs of men — a general trend towards a far-distant ideal — which all events conspire to further, which cannot be retarded, but which may be accelerated with the minimum of friction. By discerning the direction of this trend we may hitch our machinery to Nature's own power-house, and thus multiply our forces indefinitely. Emerson's poetical suggestion that we should hitch our wagon to a star was a flash of real insight into the powers ever at our service if we have wit enough to harness them.

There is an idea which all history, all experience teaches, and which has found embodiment in every ideal, whether religious

or secular, — the idea of solidarity, of unity of interest, of brotherhood, — which cannot be ignored with impunity. Isolation is impotence; unity is strength and the essential condition of all real progress.

The true statesman discerns the distant goal and the general trend leading to it, and he perceives that all effective action depends on discerning not only the right steps towards it, but also their right order and their only effective sequence. Disheartening failures arise from neglecting to secure a base before attempting a further advance; from trying futile short-cuts, trying to do the work of to-morrow instead of concentrating all energy on the task of to-day.

The real task of to-day, forced on us by a chain of causes that we can neither resist nor question, is the perfecting of all forms of organisation. We flatter ourselves when we speak of our "civilisation," which is in fact a higher stage and will come later. Organisation is the foundation of civilisation, and we are laying the foundations. Organisation is power, is largely aggressive, and compels counter-organisation. Labour organises; capital responds. On a larger scale a nation organises its forces, military or industrial,

and so compels other nations to do likewise. By the law of its being, organisation increases, the larger organisations absorbing the smaller; and there can be no halt or regress until organisation is world-wide. Its aggressive nature can be checked by counter-organisation bringing about an equilibrium, thus rendering war impossible or suicidal, whether between nations or between capital and labour. War in all its forms is disciplinary and educative, and until we learn the lesson, and discipline ourselves to the highest state of efficiency, war and its waste will go on.

Therefore Efficiency in Excelsis — efficiency in the highest attainable — must be our motto, our watchword. That is Nature's great purpose, the object and end of evolution. If we put ourselves in line with this purpose, we hitch our machinery to Nature's own power-house; we put ourselves in line with the great law of progress; our work will prosper, and any reform on the same lines will carry its own dynamic.

CHAPTER II

EFFICIENCY

I

In striving for the highest attainable efficiency we must begin with the unit. Reformers have been much exercised over the absurdity of taking such great care with the breeding of animals, while we allow human beings to breed in any manner and under the most unwholesome conditions. Yet of what moment is it whether animals are of this or that form, compared with the awful possibilities attending the birth of a single human being? A whole race of criminals has been traced to one unfortunate birth, while endless benefactions may be traced to a fortunate one. This leaves out of account the possibilities of the happiness or the misery of the individual. While this haphazard breeding is deplorable, it would probably be more deplorable for society to interfere while men remain so strangely blind to what is the real purpose of life.

The whole subject of the relation of the sexes is complex and puzzling, and is the only problem reformers cannot solve, even theoretically. While teachers point in one direction, Nature seems to be pointing in the other. But although we cannot see any thorough-going solution of the problem, we can see one step ahead, and we can note one or two momentous tendencies.

Marriage seems to be getting less popular, and to be regarded less and less as a necessity by both sexes. So many women become wage-earners that they are less dependent on marriage; while young men, having so many more competitors in so many walks of life, find it more and more difficult to marry young. This brings many complex evils which pass the wit of man to deal with, as every attempt to do so but drives them under ground, aggravating the evils themselves, and creating worse ones.

Another tendency is the decreasing fruitfulness of marriage. This is portentous. Those who by all accepted standards it is most desirable should increase and multiply are just those who shirk the responsibilities of a family, while the undesirable ones propagate with undiminished fertility. What happens with individuals is repeated on a larger scale by nations

or peoples. The "lower" the race the faster it breeds; while the higher and more civilised races tend to slacken the pace, become stationary, or actually decrease. This suggests that we are on the broad way to national perdition, the survival of the unfit; but Nature does not yet seem ready to advance beyond her highest attained point. She seems to aim at raising her children from the lower strata, to keep things surging upwards from below.

Shoals of apparently undesirable aliens pour into the United States, taxing the nation's power of assimilation to the utmost, but in a generation or two these people are raised in the scale and become good Americans. For the time being this keeps down the average, and a few of these strangers bring some horrible old-world devilry with them; but the nation is gainer in the end. The mixing of races tends to evolve a higher type. Nature's selective action tends to maintain the better qualities and eliminate the lower. It is the mixed races that have done the greatest things in the world. The United States and the vast British Empire are Nature's huge mixing-vats, with ingredients supplied by all peoples, — alembics from which Nature distils the finer essences of humanity. The Celtic setting of the

Anglo-Saxon race in Great Britain has been an enormous source of strength and inspiration. The inrush of those hardy old sea-dogs, the Vikings, in the early days supplied an invaluable element. For her generosity in offering an asylum for the persecuted of all lands England has received Nature's benediction, as some of these outcasts brought new industries to her shores and permanently enriched her, pecuniarily and racially. London, especially the East End of it, is a seething cauldron, almost a witches' cauldron, of outcast aliens which even the United States reject. Good ultimately will come of this mixing up of nationalities, though at a frightful cost of present suffering to the natives.

This mixing up of all nationalities in the realms of the Anglo-Saxon has wider bearings. The English-speaking peoples, "the subjects of King Shakespeare," could, if thoroughly united, be the Peacemakers or the Peacekeepers of the world, and as all nationalities would be represented among them they would have the breadth of sympathy and the knowledge to exercise their sway acceptably.

This digression was needed to determine what it is that Nature is aiming at. We must

remember that the world is governed almost entirely by amateurs, the professional politician being anathema in most countries.

Amateurishness vitiates the great body of political and sociological opinion. Any attempt to grasp Nature's aim and methods sets men gasping, and they hasten from the heights down to the more congenial "practical" plane where the outlook is so restricted that it is always "the unexpected that happens." The sufferings of humanity are scourgings of Schoolma'am Nature to teach us her lessons. She is doing the work herself and pointing the way, and whipping us for our failure to discern her plan and avoid suffering by co-operation with her.

I have endeavored to show that it is not Nature's plan to proceed upwards from her highest point, but to lift up the lower orders to a higher plane. Those who lament that the higher orders, the more sensitive and nervous folk, are limiting the output of offspring, fail to grasp Nature's intention, and to perceive that the course of events is safer in her hands than in theirs.

It is evident, therefore, that Nature's purpose, which we should make our own if we wish our work to prosper, is not so much to

increase the more highly evolved specimens of the race, who are shirking the burdens and responsibility of sustaining their kind, as to lift up the lower strata, and by so doing give herself a base from which she may advance to greater heights than any yet attained.

II

The decreasing fertility of the civilised peoples may be counteracted in two ways, — by increasing the longevity of the individuals, and by taking greater care of the children who are born into the world. The latter problem we shall consider first.

While the age of intense race-pressure continues, a declining birth-rate means a loss of power, and may mean ultimate subjection, or swamping, of the stagnating peoples by the more virile and more prolific. This pressure is analogous to that of the atmosphere. Decrease of pressure, as shown by the falling barometer, invites a storm, an inrush of wind or water from elsewhere to equalise the pressure. So human lives become of vital importance to a state which values its liberty. The question then is: What is the economic and the political value of the wastrels of society?

If they are allowed to die, they are a dead loss; and if they are allowed to run wild, they are a menace to health, to property, and to the morals of the community, and an enormous cost. An army of police and detectives is needed to secure property and to detect crime. Judges and jailers are needed, all costing large sums, in addition to the maintenance of criminals. This takes no account of the apprehension of robbery and violence which always harasses our sense of happy security, nor does it take account of the sympathetic suffering which all good hearts must feel at the sight of the misery and squalor which cannot be hidden from any seeing eyes. Neither does it take into account the discomfort and the heart-searchings which must accompany the refusal of the thousand and one begging appeals which no one can avoid. Then there are the sympathetic pangs of the religious folk in seeing this stream of outcasts hastening as they believe to a fiery perdition. If we take account of all these considerations, we see a manifold loss to the community in letting these unfortunate brothers and sisters of ours go to the devil on motors of their own devising.

If it can be shown that this terrible loss may be averted and these wastrels turned into

valuable citizens, then in the name of political economy and common sense why do we not save this waste, lessen this misery and the all-round discomfort, and thus enable ourselves to give a better account of our stewardship of the advantages that have fallen to our lot? There is abundant evidence to prove that these slum seedlings can, through means of proved efficacy, be converted into valuable citizens at less cost than it takes to deal with them later as thieves, tramps, vagabonds, or as wandering disseminators of physical and moral disease. This is to put it on an economic basis and to set aside the humanitarian considerations; the latter, however, have a sort of monetary value of their own, giving us the only wealth which is subject to no death-duties, and the only wealth we can take with us to start life in the other world.

There are many different agencies of a philanthropic character already dealing with these problems, in fragmentary fashion, and these furnish us with "practical pointers" as to the way we should go. The work of one great-hearted, whole-souled enthusiast, in spite of the persecutions and misrepresentations of zealots who place their creed above God and humanity, has built up one of the biggest light-

houses in the United Kingdom, which throws its beams over the dark sea that engulfs "the submerged tenth." Dr. Barnardo, who in himself illustrated the value of the mixing of races, focussing in his own person the genius of Spain, England, Ireland, and Germany, was one of the most remarkable products of the nineteenth century. The Rev. Hugh Price Hughes said of his work: "Never in the history of even Christian civilisation did any human being in any land establish such an institution, so vast and so many-sided, as Dr. Barnardo's Homes." "This," says the Bishop of Hereford, "is really a national institution, doing a great and national work in the broadest Christian spirit, rising above all our denominational differences and embracing all Christian sects." Testimony could be multiplied from the King downwards as to the value of this great child-saving work.

Dr. Barnardo, "The Foster-Father of Nobody's Children," the apostle of the "Ever-Open-Door," began his work in the smallest way. Taking the most hopeless children of the abyss, he cleaned, clothed, and trained them to be useful members of society and freed them from the criminal malaria of the slums. His object was always to provide these parent-

less wastrels with a home, and not herd them into soul-deadening barracks; to surround them with love and personal interest, and not subject them to the dead and deadening routine discipline. This was a manifold boon; it was not only a boon to the poor little motherless mites, but it also provided an outlet for the maternal instincts of women denied the crown of wifehood and motherhood by the cruelly unnatural social arrangements we have drifted into. The movement carried its own benediction from the first. It has grown and prospered, and is prospering beyond the dreams of the most sanguine. It has ramified until it has branches throughout the United Kingdom and Ireland, and it has made its influence felt nearly all over the British Empire, especially in Canada. "16,160 trained boys and girls have been emigrated to the Colonies, while 30,000 others have been placed out in service in England, or sent to sea, or given a trade. . . . Immense crowds of helpless boys and girls have entered its doors wretched and forlorn. In a short time they have been transformed, as if by a magician's wand, into healthy, happy lads and lasses, with a purpose in life and a high aim before them."

A mere catalogue of the institutions cov-

ered by the designation of "Dr. Barnardo's Homes" would fill pages. They range from the "Babies' Castle" in Kent, the Girls' Garden City, Hospital, Refuge, Industrial Farm, Shipping and Emigration Agencies, all forms of Homes, to the Watts' Naval Training School, with imposing buildings in one of the loveliest and healthiest spots in Norfolk.

This great philanthropic and humanitarian work is a monument of what religious enthusiasm and organising genius can do. Like George Muller of Bristol, who did such marvellous works by prayer, Dr. Barnardo relied on it as a sort of wireless telegraphy which brought him into touch with sympathetic minds who responded to his appeals for help. Like the Christian Scientists, he "demonstrated substance" whenever it was needed, and with marvellous success. The list of strange "coincidences," where funds have flown in at critical moments, in apparent answer to prayer, would stagger the most sturdy sceptic, and compel him to admit that "there is something in it."

The one certain fact — and with that alone I am now concerned — is the dynamic energy of religious conviction; it is a force to be reckoned with and used by every wise re-

former. The work done by the Salvation Army, however much its methods may jar on sensitive souls, is acknowledged even by kings and legislators to be a great force for good in a nation's life. The Church Army is doing similarly good work. These religious and philanthropic forces should be used to the utmost, and the generous subscribers may be assured that they are not only banking funds in heaven, but that the whole nation is reaping pecuniary benefit in this world from their outlay.

My aim is not to preach, but to treat these matters on an economic and business basis. The great organisers who have done so much to attain a higher stage of industrial evolution regard it as a part of their educational mission to show that well-organised philanthropy *pays;* that if a thing is good, it will carry its own driving forces with it. If we can only put what is regarded as "altruistic" work on a business basis and show that *it pays,* no preaching is needed, for the work will prosper on a dollar footing. That intangible or spiritual dollars will also flow in as a sort of higher compound interest, in the gratification and the rebound of happiness bestowed, is a certainty in the higher economics.

With that coming science we are not at present concerned.

The work of General Booth, the Church Army, and Dr. Barnardo, it is true, forms but a part of the multifarious charitable institutions of Great Britain. In the United States their name is legion. Far-reaching as they are, however, they do not and cannot cover the whole ground, and they need supplementing with national and corporate effort on a business footing.

The best suggestion I have yet met comes from that latest of Epicurean philosophers, Mr. Horace Fletcher, in his remarkable little book entitled: "That Last Waif, or Social Quarantine." In this he argues that the state should guard itself as carefully against untrained children as it does against children suffering from infectious disease. This is what he means by "Social Quarantine," and he shows that one untrained or vicious child may be a veritable plague spot, infecting not only its whole surroundings but succeeding generations. A case is given of a single neglected child in a wealthy community of New York state, from whom there came a notorious stock of criminals, vagabonds, and paupers, whose existence imperilled property and every

individual in the community. Not less than twelve hundred persons were traced as the lineage of six children who were born of one perverted and depraved woman. She was once a pure, sweet, dimpled little child, and, with proper influences thrown about her at a tender age, might have given to the world twelve hundred progeny who would have blest their day and generation. "Look at the tremendous fact involved! In neglecting to train this one child to ways of virtue and well-doing, the descendants of the respectable neighbours of that child have been compelled to endure the depredations, and support in almshouses and prisons, scores of her descendants for six generations!" Cases of this kind might be multiplied showing an immense all-round loss to the community.

The question is, Can this be prevented? Abundant evidence is given to show that it can. Kindergartens and other character-forming institutions, *if they secure the children young enough*,[1] can relieve these unfortunate waifs from the supposed tyranny of heredity and make good citizens of them. Mr. Fletcher was in communication with the ablest kindergarteners and a large number of persons

[1] See Appendix A.

engaged in educational, correctional, political, and business affairs in the United States and in England, and he summarises their opinions in this remarkable way: "Ninety-eight per cent of the condemned and neglected 'hopelessly submerged ten per cent stratum' of cruel tradition have been reclaimed by present methods of care, and one hundred per cent can be saved to useful citizenship by means of prevention instead of correction. One one-hundredth of present incomes of one-half the people saved from waste and applied to thorough quarantine will prevent the causes which now result in ten times the amount being swallowed up in futile attempts at correction by means of punishment, and which do not give security from the curse of unsafe, unsanitary, and uncleanly conditions."

Dr. Barnardo said: "Within the past twenty-six years nine thousand five hundred and fifty-six trained boys and girls, the flower of my flock, have been placed out in situations in the Colonies, and have been continuously looked after and supervised ever since by a company of devoted and experienced men and women. Results recently tabulated in the reports to and from the Government of Canada show that the failure among these

emigrants is less than two per cent (actually 1.84 per cent) of the whole."

Mrs. Sarah B. Cooper, a great authority on these matters, said that in fourteen years, out of about 16,000 kindergarten children, they had the history of about 9,000, and of these not one had been arrested for crime. Mr. Crowley, Chief of Police, declared that out of 8,000 children arrested for crime in San Francisco, but one had been trained in a kindergarten.

Dr. J. H. Kellogg, of the great Battle Creek Sanitarium, has done and is doing excellent work in child saving. He has a Home-School somewhat on Dr. Barnardo's lines; but, in addition, he has adopted into his own home no less than forty children, many of them taken from the most hopeless environment. Some of these have gone out into the world with fine, well-formed characters, and are doing excellent Christ-work in saving others from the abysmal depths. He has still about fifteen at home, and the warm-hearted doctor says he and his good wife could not spare one of them. When looking at them, I saw at once that while some had angel faces others, under anything but the most perfect training, would have been "little Turks" to

deal with. As it is, their behaviour is perfect, and the discipline has been that of love and kindness instead of severity. The doctor and his wife take the position of advisers rather than that of school drill-sergeants; good habits are built into them physiologically, and are organically remembered. They are worked into the growing organism, as it were, and are registered in the system and become almost automatic.[1] When these children are from home, the manner in which the elder ones care for the younger is so touching that the physician doctor, who spoke of it, did so with a tremor in her voice. Look on this picture, and then think of these heaven's guests on earth left in those devil's dustbins, the slums of a great city. What would they have been? These children will go into the world, and each will be an infectious *health-spot,* spreading health and happiness everywhere; had they grown up in festering slums, they might have become plague-spots, really more dangerous to society than the diseases about which we are so terrified.

This is but one of a thousand examples that might be given of the awful responsibilities

[1] Mrs. Kellogg has published a book on child-training which is of great value. See Appendix A.

resting on society as to what it shall do with its "apprentice-citizens." The question is, whether, on a mere dollar basis, it is not better to spend money on *crèches*, kindergartens, and training schools than on asylums, prisons, police, and all the other means of protection forced on us by the existence of a criminal class? On the dollar ground alone there can be no doubt as to which is the better economy. But when we think of all the crime, disease, and misery on the one hand, and the health, happiness, and general well-being that society is designed to promote, the argument in favour of thorough social quarantine is overwhelming. Let us sum it up in a few propositions:

(*a*) With the growing tendency of women to shirk the burdens of a family, every human being born into the world becomes of more and more value, nationally and socially. Therefore sound economy would dictate turning them to the best possible account.

(*b*) It is proved that the worst slum children, if taken young enough, and put through kindergartens or other character-building institutions, will become valuable members of society, a strength instead of a weakness.

(*c*) Therefore it would be good economy to

put a "cordon of care" around all new arrivals into the world, as we do with arrivals from other countries, to prevent the importation of infectious disease.

(*d*) The quarantine cordon, to be effective, must be complete,—there must be no loopholes for escape. As one case of smallpox may infect a whole neighbourhood or a whole community, so one untrained child may be a veritable plague spot, and infect not only a community but coming generations. The deadly disease is a mere passing trifle compared with the lasting consequences of neglecting children who may be the breeders and disseminators of disease in its most ghastly forms. While all present child-saving agencies should be encouraged, an official, a national cordon should be placed around them to catch those who escape their nets.

The dollar cost would be considerable at first, but it would be a very small insurance charge on those who have most to fear from burglaries and other depredations to which property is liable. This, it is true, would be paying insurance for benefits to be reaped by the rising generation. It might be regarded as death duties paid in advance. At present we are saddled with the cost of a continuous

war, in which there is no truce or periods of peace. This never-ending struggle is between the forces of law and order, of health and cleanliness, against those of crime, filth, disease, and all forms of misery. The cost of this war, and the cost of maintaining the prisoners, amounts to a heavy national tax. With effectual social quarantine this tax would be gradually reduced, and at the same time a valuable, wealth-producing addition to the population would be growing up. Thus there would be a double gain in money alone. The moral and the spiritual gain, and the gain in health and happiness to the entire community, would be incalculable.

Every child born into the world is potentially an angel or a devil; it rests with society to determine which it shall become.

CHAPTER III

TRAINING — CAPACITY CULTURE

ONE of the most enviable of titles, or nicknames, ever bestowed was that won by Launcelot Brown, the great English landscape gardener, who is known to history as "Capability Brown." M. Solvay, of Brussels, who has treated the problems of the time with great knowledge and insight, urges that a nation's most pressing interest is to increase the number of its capable men, that the development of productive capacity in all grades should be one of the chief aims of education. As we have the term "proletariat" we should adopt the word "capacitariat," to denote that class of men of great organising and producing capacity on whom our future so largely depends. This should be the equivalent of a Legion of Honour, which is an institution greatly needed in the United States[1] to give distinction to its men of brains and its leaders in the public service.

In view of the ever-increasing demand on

[1] See Appendix B.

all-round capabilities it is essential in our capacity-culture to develop the young in an all-round way. We need a nation of "handy men." If we apprentice a boy to an established trade, new machinery, new applications of force, or new demands, by the time he has learned it, may throw his laboriously acquired trade quite out of date. The old apprenticeship training tends to put a young man into a rut, from which he escapes with difficulty. This is true of trades and professions alike; any system that can be taught is apt to anchor a man, and be looked on as an end, instead of a base for further advance. It is faculty we should train, rather than systems, which tend to bind a man to out-of-date methods and engender obstructive conservatism.

A general all-round training should be given as the best base for ultimate specialisation, and also for discovering what the pupil is best fitted for. A man is doubly a man if he finds his true vocation. Half the tragedies of life arise from men occupying positions for which they are unfitted. A mistaken calling may cause a man's work to be a life-long drudgery, whereas if he had found his true vocation his work might have been a life-long pleasure. Many a man is prevented

from following his bent by the fear of losing caste. He takes to a profession for which he is utterly unfitted for fear of sinking in the social scale by assuming a trade which he would have adorned. Thus we have a wasted life, and as he probably keeps a better man out, he not only spoils his own career but another's as well. The narrow and misguided social opinion which thus forces men into wrong positions, and prevents their taking those for which they are really fitted, is gradually widening, as we see coronet-crowned heads entering trade, and ladies of high degree doing likewise. This widening of opinion needs accelerating, as these prejudices interfere with national efficiency.

When men are free to follow their natural leanings, a great step in advance will have been taken. Then the further problem remains, — how shall we find out a boy's true bent? The kindergarten play-work should give some indications, and I see very powerful reasons for extending a similar system through the whole range of education.

(*a*) In the first place, there is no doubt that a large share of national energy in England is wasted in more or less useless play. The time and vital energy expended in attaining

distinction in a game would give a man a useful trade or profession. The keen excitement of the great games is an actual intoxication, and is apt to be as demoralising as other forms of intoxication. The fruitful emulation in the real work of life seems deadly dull in comparison. It is apt to be regarded as a bore, a mere interruption of play. Play thus becomes the real end of life, and the bread and butter business becomes mere drudgery, to be hastened through in a perfunctory way.

(*b*) Physical culture and recreation, the principal justification of these games, which so often spoil a man for real work, may be had in better and more profitable ways. Games are good and useful when they fulfil the true purpose of recreation, and refresh and strengthen a man for the real business of life; but when they take the zest out of work and put it all into play, it is pernicious and suicidal.

In my cricketing days, batting and bowling filled my whole horizon. When I played chess, my days and long sleepless nights were filled with openings, gambits, and endings; all other interests in life seemed tame beside these absorbing problems. Boys of all ages are greatly influenced by their surroundings, and when the talk and thoughts are all about

play, work becomes drudgery. A demoralising element has obtained a dangerous footing in England. If a man obtains distinction in his varsity sports, it becomes a stepping-stone to educational posts for which the athlete may be quite unfitted, and hundreds of boys may get a bad start in consequence. If the boys are not actually encouraged to look upon games as the real object in life, they at least miss those stimulating, character-forming influences which can only come from the born genius for teaching. The great athlete may be a great scholar and educator as well, and his athletics may be kept in their proper place; but such men are exceptional.

(*c*) As the play element is an essential one I would not curtail it, but would direct it into more profitable channels. The healthy boy hates to be still; the accumulating energy must be let off, as is shown by the roar of relief with which most boys break out of school. If work is sufficiently varied, it becomes recreative; and if one had not too much of it, nearly every form of work would be a pleasure. So an aim of education should be to turn some of the superfluous energy that is wasted in play, into profitable work; that is, work that trains the muscles and the mind

at the same time, giving a general insight into various handicrafts which would be a useful base for any special trade or profession afterwards chosen.

Manual training is held in high and growing esteem by all "live" nations as a most valuable, not to say an indispensable, element in education, or capacity culture. This was abundantly manifested at the World's Fair at St. Louis, a visit to which was a liberal education in itself. The manual training was much in evidence in all the educational exhibits. Its value was emphatically insisted on by the Mosely Commissioners in their admirable reports.[1] As these invaluable papers are, or should be, in the hands of every educator, I shall quote from a still later report, made by a commission sent out by the National Cash Register Company for the purpose of improving the schools of Dayton, which they are doing their utmost to make fully worthy of its title of "The Gem City." In America much of the statesman-like ability which in the older

[1] Mr. A. Mosely deserves a big monument for his happy inspiration and his insight, not to mention his munificence, in taking out his two Commissions to the United States, — one to inquire into industrial, and the other into educational systems. He showed true statesman-like appreciation of England's pressing needs.

countries would overrun into politics goes into the building up of great industrial organisations. This genius for organising is not content with building up vast industrial concerns with branches all over the world, but runs over and brightens and improves all surrounding conditions. This is notably the case with the National Cash Register Company. Dr. Kendall, of the Shortridge High School, on receiving this commission, said: "This is the greatest thing I have ever heard of, — a manufacturer sending out men to investigate for the benefit of the schools in the city where the factory is located. A private enterprise doing so much good cannot be spoken of too highly, and anything Indianapolis can do to assist you, you may depend upon." The readiness of Dr. Kendall and other public men to place the results of their experience at the service of others is characteristic of American broadness and generosity. This was experienced throughout by the Mosely Commissions, and in my own small way my inquiries met with the same great quality.

The National Cash Register Commission found everywhere the same emphatic testimony as to the value of manual training. This training differs from the higher special-

ised technology. It aims at giving a general insight into the use of tools, and laying a broad base for the higher specialisations. In Washington, Professor Reichel says: "Manual training is organised on a correlated system right up from the kindergarten through the lower and higher elementary grades and the high school. The co-ordination is so perfect that, as the principal of the Franklyn Public School expressed it, moving up from the elementary school to the high school was like moving up from one grade to another in the elementary school." In the representative schools of Indianapolis, as the National Cash Register Committee tells us, the work grades up from the kindergarten. "There are classes in elementary manual training in which the boys are taught knife work, consisting of woodwork, with the use of only a hammer and knife for the first grade. The work develops gradually to bench work under a special teacher. In the bench room the boys are taught to design their own patterns, cut out their own work, and do everything necessary toward the making of the finished product. While the Committee was there the boys — ranging in age from nine to eleven years — were working on a roller towel rack, and the skill displayed by some

of them was wonderful. They are taught politeness in connection with this work, and are required to assist each other whenever possible." In the manual training high schools, or some of them, in the first year, "the boys have wood-working and freehand drawing; the girls, cooking and sewing. Stenography and commercial book-keeping are then taken up. This is in addition to the academic studies. In the second year, forging, mechanical drawing, freehand drawing, botany, book-keeping, and stenography; in the third year, foundry work, mechanical drawing, freehand drawing, and chemistry; in the fourth year, machine fitting, mechanical drawing, freehand drawing, and physiology are taken up." The course is so arranged that an academic study is followed by a manual training study, which allows the pent-up energy of the child to find some vent. As Professor Emrich stated: "Manual training is the safety-valve which takes care of the overflow of spirits. Our manual training school is a complete high school plus the manual training."

It is found that scholars so trained hold their own in examinations with those who have only taken the academic course. This is a significant point. It is found that the two branches

of work illustrate and help each other. To manual training about six hours are devoted out of the thirty or twenty-five per week, and it is only taken on two or three days in the week.

My contention is, that as part of every day is spent in boisterous play or physical training, a part of each day should be devoted to various kinds of manual training. The work should be of the vigorous order, to serve as physical exercise, to let off the superfluous energy. In favourable weather part of this work should be out of doors, and where land is available it should sometimes take the form of gardening. But even in this play-work good form should be insisted on, and the work should be done neatly and deftly. Great care should always be taken never to tire the workers, or, at all events, never to induce more than a pleasurable sense of fatigue. As soon as it becomes *work*, or burdensome, it should be changed, so as never to produce distaste for it. With vigorous exercise such as this, and the military drill, nearly all the requirements of physical training would be attained, and less time would be needed in the gymnasium. This would be good physiological economy, as instead of exercise for exercise sake, the exercise would be attained in a more interesting

way, and in every case there would be something to show for it, either in gained knowledge or in actual products.

During all this varied play-work the teachers might drop a thousand hints in natural philosophy illustrated by points in the work. These, coming at the psychological moment, would often be of more value to the pupil than elaborate lectures apropos of nothing in particular.

There are more advantages in such a course of training than can be even mentioned now. It would be a great good to level up all occupations,[1] so that a man could engage in the work he is best fitted for without losing caste. It would also give him the best possible chance of finding his true vocation, and so getting the best work out of himself of which he is capable, with the greatest amount of pleasure and the least sense of drudgery, and thus avoid those dismal failures in life which lower so materially our standard of national efficiency.

[1] A very interesting experiment in School Management, etc., is outlined in Appendix D.

CHAPTER IV

HEALTH — WEALTH

HEALTH is the most precious form of wealth. It is the worker's stock-in-trade; and it is the foundation of happiness and efficiency. But while it is so all-important, it would, if it were possible, be better not to speak of it or read about it, because we cannot speak of it without thinking of its opposite — disease. "*Sick-talk*" about ailments, disease, and horrors of all kinds is a mild form of infectious disease itself. Fear and imaginative picturing of diseases tend to lay the foundation of those diseases and to produce pathophobia, a most distressing complaint in itself. That the discussion of friends' ailments should rank with the weather and the servant question as a subject of conversation among women is essentially unhealthy, tends to produce the *malade imaginaire,* and fills the air with a sort of mental miasma. People who will *needlessly* talk about morbid horrors should be quarantined.

But, unfortunately, we are suffering from maladjustment to our environment. The rapid advance of civilisation, or *artificilisation*, has changed all the conditions of our life; but we have not yet sufficiently adapted ourselves to those changes, and the physiological changes in the human body are not keeping pace with the changed and changing conditions. As these maladjustments affect both health and efficiency, it is necessary to discuss these problems, to discover the best solutions yet attained, and to reduce the results to the simplest possible rules. We should fix our attention on the three important points only.

A Triad of Essentials

Pure air, right nutrition, and all-round exercise will give us all the health and efficiency obtainable in a world where we are so much at the mercy of others, many of whom are dominated by old-world ignorance and prejudices or are blinded by one-man fads which fill their whole horizon. In the matter of fresh air we are especially at the mercy of others, and of circumstances over which we have little or no control. The ignorance of the paramount importance of fresh air, and

the superstitious prejudice against its free admission into over-crowded rooms and cars, are responsible for more deaths than all the wars. I am afraid to quote the figures given me by experts as to the wide spread of consumptive troubles, tuberculosis, and other lung disorders, as doctors' statements are apt to be unduly alarming, in order to scare people into the right path. There are strong grounds for believing that the fiend influenza owes its existence to the breathing of vitiated air.

Hots or Colds?

I have put the question in this odd form to fix it in the memory. The terms "colds" and "chills," while covering some physiological truth, carry the most deadly connotations. What 's in a name? it is asked. Disease and death are in a name, and there are very few families who have not to mourn desolating gaps in otherwise happy circles owing to the fatal misconceptions clustering round the words "colds" and "chills." These terms, used to denote catarrh and other troubles, suggest an origin of these distressing things which mislead nervous folk to their doom, and lead them to commit lingering suicide under

the impression that they are taking care of themselves.

It is thought that a change from a warm temperature to a cooler one gives "cold"; yet in Turkish baths, recommended for invalids, a man may endure a temperature that would cook a steak, and then, to prevent his taking cold, he is ordered to plunge into cold water or to take the more startling shivery shower-bath! This change is as extreme as any that could be devised, and it is undergone by the doctor's orders. This indicates that change of temperature tends to prevent colds rather than to cause them. Yet we see people coming out of hot rooms muffling to the eyes to keep up the temperature, and exclude as far as possible God's breath of life — fresh air. People remain contentedly in hot and stuffy rooms that are veritable poison-baths. Their vitality gets lowered; they go out into the life-giving fresh air, and they take a "chill" that leads to endless trouble. They have taken "cold," and the fresh air is blamed, and the fact that they had been inhaling poison for hours is ignored or unsuspected. They have been put on the wrong track by that fateful word "colds." Now, if these complaints were called hots, calids, calors, scoria, or hot-air poisoning, or

by some more suitable name, people would be put on their guard against the real cause of the mischief.

I was a fresh-air worshipper, or faddist, if you will, many years before the medical men awoke to the fact that in fresh air we have a real cure, perhaps the only one, for consumption. At the health resorts in the old days it was pitiful to see poor misguided creatures, practically under sentence of death through ignorance, rushing like maniacs to shut windows that some angel of light had opened. I have seen this madness on the Riviera, where consumptives turned hotels into sets of lethal chambers in which they slowly committed suicide, and, with the best intentions in the world, tried to suffocate the more sensible inmates. In vain did I point out the suicidal nature of their actions; they only regarded me with contemptuous amazement, and told me that it was only a fad of mine. Regardless of my warnings, they kept themselves in just the condition of stagnant air that the hostile microbes most highly approve, and in which they increase and multiply (and replenish the graveyards) with the most deadly fecundity.

Consumptives are not the only persons who

create, voluntarily or involuntarily, these terrible lethal chambers, in which they too often qualify for joining the under-sentence-of-death fraternity. People who have to journey to and from cities by rail during the business crush have generally to travel in deadly poison-baths. The cars are crowded to suffocation, and there is nothing to breathe but fetid dust-and-sulphur-laden air respired from many doubtful pairs of lungs. Any attempt to open the windows, in cold weather at least, is apt to be met by vigorous protest from some health-ignorant person who is unconsciously bent on suicide. In the smoking-rooms or cars matters are often worse; men are content to sit breathing smoke-thickened air just exhaled from another's mouth. It is claimed that the smoke kills the microbes; that it does not kill the smokers too shows the immense powers of resistance and adaptability of the human constitution.

It is shameful that English railway carriages should be so badly ventilated that one can, as a rule, have air only at the expense of a cutting draught, dust, dirt, ashes, soot, or cinders. In America the cars are better, but everywhere, in this respect, there is plenty of room for improvement.

The Breath of Life

Fresh air is the veritable breath of life; and there is profound significance in the words of the old book, that man was dust until the breath of life was breathed into his nostrils and he became a living soul. We are told by occultists and the Yoga philosophers that the air is a storehouse of spiritual forces, as much higher than our ordinary power-plant as electrical works are above treadmills. This may seem too fanciful; but there is no doubt in the minds of the initiated, or up-to-date philosophers, that all the wondrous discoveries of physical science, almost blinding in their brilliance, have, or will have, their exact counterpart in discoveries in the mental and spiritual regions, in the marvellous healing and life-giving powers and potencies of that inexhaustible "power-station" — the human soul.

Be this as it may, the value of deep breathing, which I have preached and practised for the last thirty-five years, is now generally recognised, and is taught by all physical trainers that are worthy of the name. Drink deeply only of the breath of life. It is the one thing of which we cannot have too much.

"Shut your mouth and save your life"

conveys a useful hint when practising deep breathing. Breathe through the nostrils as much as possible. They are the air filters which purify the air, and raise it to a suitable temperature for the lungs. When panting after vigorous exertions, the mouth and throat are sufficiently heated to raise the air to the needed temperature before it reaches the lungs; but the right rule is to breathe as much as possible through the nose and as little as possible through the mouth.

Physical trainers teach various methods of deep breathing, some of them recommending certain movements of the arms and shoulders to assist the action of the chest. But there is not the slightest need to make an elaborate process of it. We need simple exercises, that can be practised at any time and in any place. All that is necessary is to throw the head well back and up, the chest well out, and the shoulders back, with a braced-up feeling as if you were going to walk on air. Then by drawing in the breath slowly through the nostrils you must try to fill those seven hundred million air cells of which the lungs are made up. It will soon be found that in ordinary breathing only about one-third of the lungs are used, leaving two-thirds of the cells unventilated, and part of the

blood unoxygenised and unpurified. This predisposes the unventilated parts of the lungs to disease, and leaves part of the blood unpurified and to that extent poisoned. This has a debilitating effect on the whole system. It will be found as a rule that consumptive people have pinched and narrow nostrils. Mr. Eustace Miles says: "It stands to reason that the nose-openings must be large and free; hence operations may be advisable in certain cases. They are very common in New York and London and elsewhere. There must be thousands who would be suffocated if you closed up their mouth and one nostril (the right is usually the freer)."[1] Checkley, in his "Methods of Physical Culture," says: "Take long breaths as often as you think of it. You may not think of it more than once or twice at the beginning. Then you will find it easy to remember every hour or so, and then twice or three times every hour, until finally the habit is formed, and the old, short, scant breath — a mere gasp in many people — is entirely abandoned. A long breath will be found to represent strength that endures. In all lung exercises endeavour to inflate the lungs upwards and outwards instead

[1] Avenues to Health: Swan Sonnenschein & Co., London; E. P. Dutton & Co., New York.

of downwards. *Carry chest and lungs as if the inflation were about to lift the body off the ground upward.*"

Another authority says: "Life depends upon oxygen, and must have it. Refuse it, or stay in a room where the dead air is not changed, and the blood stagnates. The heart acts slowly; the impulse of digestion is withdrawn, and the food may ferment in the stomach or pass through unused; the blood clogs the brain and the head begins to ache; the dead tissues throughout the body, instead of being carried off by the exhalations, are collected in every nook and corner, where they become a fertile soil in which disease thrives. Oxygen is the first, foremost, greatest, and most active element that can be taken into the system; no other matter can equal it in importance, whether it is found in what we eat, drink, or breathe. Fresh air that has been vitalised by the sun, that is, air on which the sun has shone, is the quickest and surest destroyer of germs of disease in the system."

It would be difficult to overrate the supreme value of fresh air. In it we have an exhaustless store of vitality, health, and energy always at our service. Regard stagnant air as you would stagnant water for drinking purposes,

and as equally deadly. Regard shut-up rooms as lethal chambers or poison-baths, in which one commits slow suicide, — in which we lay the foundations of consumption, influenza, and a host of other troubles.

It is significant that the indrawing of the breath and inspiration are covered by the same word; there is a close connection between them, and we shall be wise to drink deeply from the ever-flowing fount.

CHAPTER V

THE GOLDEN RULES OF RIGHT NUTRITION

IT is in the matter of eating that we suffer most from our maladjustment to the changed and changing conditions. The character of our food has altered considerably, and has made possible certain bad habits which have serious physiological consequences. Instead of having food in a crude form, which necessitates grinding in the best of all mills, — the teeth, — and preparation in the best of all laboratories, — the mouth, — with its complex chemical solutions, we have it fined and refined until, as Dr. Harry Campbell tells us, we are living in an "Age of Pap."[1] So our nourishment, instead of being passed through Nature's own milling, and through the ordained chemical preparation in the mouth, is bolted or forcibly swallowed after the smallest amount of perfunctory mastication. This not only deprives us of the

[1] Professor Symes-Thompson recently indorsed this statement, in his lecture on "The Teeth in Disease," and urged the necessity of thorough mastication to check the tendency towards a race of toothless men.

most refined epicurean pleasures that the sense of taste can bestow, but it also causes manifold internal troubles, and creates the direst of all purgatories — that of the dyspeptics — with its attendant torture-fiends. To make matters worse, the high and increasing speed of the strenuous life compels men to rush their eating at auto-car speed, while their minds are racked by business worries or excitements, which use up the vital energy needed for the most important of functions, — that of rightly nourishing the body.

Then, again, a host of stimulants coarsen and "sharpen with cloyless sauce the appetite"; the monitors and guides which Nature has provided are dulled into insensibility, and we are left to the mercies of ignorance or to doctors, who have missed the natural cue in this complex matter and are more interested in prescribing remunerative cures than in finding preventives.

It was reserved for a layman to pick up the missing cue, and he, with rare insight into the necessities of the case, at once set to work to interest the scientific men. By inducing them to experiment, he won their imprimatur in a very few years, — fewer than would be thought possible when we remember the dead weight

of orthodoxy and high respectability they must drag after them. The starting point — the value of mastication — was known to medical men years ago theoretically, but its extreme importance, nay, its imperative necessity, was not fully *realised* until Mr. Horace Fletcher's discoveries brought it home to them. As I heard one distinguished physician say, he had been preaching it all his life, but had never practised it until Mr. Fletcher's experience brought it home to him. Now he is an industrious "Fletcheriser" and generously owns his obligations.

Fletcherism

Personally, I am not eager to add to the number of "isms," but this one abolishes or supersedes so many others, and sweeps away so many hampering prescriptions and self-denying ordinances, that it ought to be welcomed.

Mr. Horace Fletcher was a great athlete in his youth, and being of a roving disposition he has faced life in many forms and in many lands. He has done nearly everything, from teaching snap-shooting to Marshal Oyama and commanding a lorcha in China seas, to filling the rôle of amateur opera director, of in-

ventor and manufacturer, of merchant, and even of art critic. This vast and varied mass of *lived knowledge* forms the best of all backgrounds for the fruitful studies which he has made his specialty. Fortune having finally smiled on his multifarious undertakings, he found himself in middle life the master of a competency and in command of those luxuries of life, such as a glorious library and works of art, which figure in the pictured paradise of a man of culture. But having attained these objects of his ambition, he also found himself quite unable to enjoy them. He was uncomfortably obese, scant of breath, and with such a complication of internal complaints that he was denied life insurance. Physicians at the various "Cures" in Europe having failed to cure him, he took the matter into his own hands, and worked out his own salvation. So completely did he succeed that four years later he was accepted as a first-class "life" by three different insurance offices.

He discovered by chance that he could obtain an unusually good morning's work (writing) out of himself without any breakfast, and feel all the better without it; this gave him his first hint. In Gladstone's dictum: "Chew every morsel of food at least thirty-two times,"

he found his second hint. From Professor Fenollosa, the great "Japantheist," he obtained his third hint, in a lesson from the Samurai or Bushido discipline. In order to attain the heights of self-control of his Japanese friends, he was told that he must "*get rid of anger and worry.*" The quite unexpected idea that anger and worry could be eradicated like other *bad habits* came as a revelation to Mr. Fletcher, and it started a train of thought richly fruitful in results.

These three germ-thoughts, — the value of abstinence from food until a true appetite had been earned, thorough mastication, and the banishment of anger and worry, — fell on prepared soil, and the fruitage has been rich beyond all expectations.

Mastication and the Elixir of Life

The importance of mastication has long been known to physicians, but in an indefinite, merely theoretical way. It was not until Mr. Fletcher had pushed it to its limits, and had made some remarkable discoveries in connection with it, that its vital importance was *realised.* His teachings, or, as he modestly calls them, his "findings," as gathered from

his works, "The A. B.-Z. of Our Own Nutrition," and "The New Glutton or Epicure";[1] from his later lectures in America (not yet published), and from numerous personal discussions with him, may be thus summarised:

No food should be taken unless a keen appetite for it is present. Every morsel should be so thoroughly masticated that it is sucked back into the throat by a selective mechanism, which has recently been described by Dr. Higgins, and is caught up by an involuntary swallowing impulse, which is quite automatic. Any forced swallowing, or gulping, or strained action, as in swallowing a pill, is wrong. Not only should solids be thus chewed, but all liquids having taste, and therefore having something in them to be digested, should be treated in similar fashion. That is, every liquid, except pure water, should be *sipped* and tasted in the mouth as a tea- or wine-taster does. This mechanical action is necessary for the thorough chemical preparation of the food, liquid or solid, — for the vital process of di-

[1] These works are published by the Frederick A. Stokes Company, New York. They may be obtained in London, pending the issue of an English edition, from Messrs. B. F. Stevens & Brown, 4 Trafalgar Square; or from Messrs. L. N. Fowler & Co., 7 Imperial Arcade, Ludgate Circus, E. C.

gestion on which the health of body and of mind both depend.

The saliva is a veritable Elixir of Life, and the *thorough insalivation* (mixing with saliva) of *all* foods is the first step in the process of healthy digestion. If this is neglected, endless internal troubles may result.

According to the accepted chemico-physiological theories, the starch in grains, vegetables, and foods generally, cannot be digested unless it is first turned into sugar, or dextrine, either in the mouth or in the small intestines. When food cannot be digested easily it sets up fermentation, and has to be reduced by the putrefactive action of bacteria. This action gives rise to poisonous products, which are absorbed and which circulate through the body, creating generally a mild, but always an actual, form of blood-poisoning. This is always a menace, and will get us down whenever our powers of resistance are sufficiently below par; it will attack the physically weakest organs, or will produce the disease most dreaded or fear-pictured most clearly in the mind. The mental factor is potent both for causing and curing disease.[1] The neglect of buccal preparation or

[1] See Dr. Schofield's The Mental Factor in Disease.

"mouth-thoroughness," complete mastication and insalivation, carries other fateful consequences. It throws more work on the supplementary digestive apparatus of the intestines, and is apt to cause a painful and irritating form of intestinal indigestion, which is a fruitful cause of sleeplessness, — one of the most wearing of all troubles.

"Three Inches of Physiology"!

In a recent visit to America Mr. Fletcher gave some lectures under the above heading to the medical students at the Battle Creek Sanitarium and elsewhere.[1] In these he contended with great cogency that Nature never throws responsibility on us to which we are not equal. She does not ask us to know all the workings of her mysterious inner labor-

[1] During a later visit Mr. Fletcher found that the appreciation of his efforts to establish the Optimum in Nutrition had increased very greatly among scientific men and the educational authorities; and he was invited to lecture on his discoveries at Groton and St. Mark's (the Eton and Harrow of America), and at Harvard and Yale (the Oxford and Cambridge of American universities). The dentists, osteopaths, metaphysicians, women's colleges and clubs, and an association of students earning their way through the University, — all demanded his services. He has thus rapidly advanced to the position of one of the great authorities on Economic Nutrition.

atories of the body; she asks us to know only the three inches of physiology easily within our ken, the tract from the teeth to the swallowing apparatus at the back of the mouth. Our responsibility begins and ends there. If we do our duty with the mouth-preparation of the food, read appetite intelligently, and therefore give her the right kind and the right quantity, Nature will do all the rest properly and give no further trouble. If the food is right in kind and in quantity, the results will be manifest both physically and mentally, and we shall have an exhilarating sense of well-being.

Among the most remarkable discoveries which have grown out of Mr. Fletcher's thoroughness of mastication is that food so prepared is nearly all assimilated, and that from one-third to one-half the quantity given by Voit and other standard authorities as necessary, suffices, and gives the best results. This, as I shall show later, is proved by Professor Chittenden conclusively.

Mr. Fletcher has further shown, by means of a new description of the mouth functions given by Dr. Hubert Higgins, that during mastication the circumvallate papillæ with their surrounding taste buds, or bulbs, — little post-

like projections at the back of the tongue, — are pressed tightly against the roof of the mouth, effectually preventing anything being swallowed until it has been sufficiently masticated. Then these sentinels relax and the prepared food is allowed to pass, and is swallowed by an involuntary impulse. This is our *natural* protection, as the tougher parts, not yet sufficiently reduced or chemically changed, are returned to the front of the mouth for further preparation. But in our ignorance of this little bit of physiology, and in our greed or hurry, we disregard these sentinels, and the food is forced past them by a voluntary act of swallowing, such as we make use of when taking a pill. This act does violence to the delicate mechanism, and forces unprepared substances into the stomach, thus leading to all sorts of trouble, and in some cases to appendicitis. Indeed, as I shall show later, there are strong grounds for believing that nearly all the troubles which do not arise from causes considered in the previous chapter are traceable to inadequate mastication and overloading of the digestive organs.

M. Solvay, who entertained the recent International Congress of Physiologists in such a princely fashion in Brussels, and who has

founded a Sociological and Business Institute on a physiological foundation, was greatly interested in Mr. Fletcher's discoveries, and with characteristic sagacity at once sent to Paris to get the latest scientific pronouncement on the subject of mastication. He received the following important statement, which he read to Mr. Fletcher and myself, and of which I append a translation, taken from "Modern Medicine." It is somewhat technical, and may be skipped by the unscientific reader.

"*The Quadruple Importance of Mastication for Gastric Digestion*

"M. Dastre, Professor at the Sorbonne, Paris, communicates the following succinct statement, which may be regarded as the latest word of science concerning the relation of mastication to gastric digestion:

"1. MECHANICAL. A division of food stuffs into small fragments. The gastric juice penetrates cubes of cooked albumen at the rate of about one millimetre per hour. (Herzen, Comptes Rendus de la Société de Biologie, 1886.) It is clear that small particles — for example, cubes, presenting on each side a surface of one square millimetre — will be pene-

trated in about one hour, while cubes with sides of one square centimetre will be penetrated only at the end of several hours.

"2. PHYSICAL. The extraction of the food substances soluble in water. During mastication the saliva dissolves those alimentary substances which are soluble in water or in a neutral or alkaline or aqueous liquid; but most of these substances act as pepsinogens (Schiff) or "succagogues" (Pawlow). The more prolonged the mastication the greater will be the quantity of saliva secreted, because of the extraction from the food stuffs of pepsinogens and succagogues to the great benefit of gastric digestion. Thus, an increased quantity of gastric juice containing a greater quantity of pepsin is produced.

"3. CHEMICAL. The saliva transforms alimentary starches into dextrine and sugar. Dextrine is one of the most powerful of pepsinogens; if one chews insufficiently, but little dextrine is produced, for the ptyaline ceases to act in an acid medium such as the gastric juice. It is true that the pancreatic juice takes up anew the digestion of starches, but the dextrine absorbed by the small intestine is without pepsiogenic properties. It must be absorbed by the stomach. It is necessary, then,

that mastication should be prolonged in order to produce dextrine in large amount.

"4. SECRETORY. Pawlow has proved that the gastric mucous membrane is innervated, from the secretory point of view, by the pnumogastric and the sympathetic reactions. The first is the centrifugal path of the cerebro-gastric reflex. The point of departure for this reflex may be either subjective (psychic reflex) or sensory (sensorio-reflex). It may be produced by visual and auditive sensations, but it is especially excited by olfactory and gustatory sensations under the influence of which the gastric juice flows abundantly. The mastication of a sapid substance intensifies gustatory sensations and consequently reinforces the sensorio-gastric reflex.

"These different phenomena are intimately related to one another. The more one chews, the more freely the saliva flows. The more saliva, the larger the amount of pepsinogens and succagogue substances brought into solution; and at the same time the gustatory sensations, which are the point of departure of the gastric secretory reflex, are prolonged and reinforced. To be thoroughly persuaded of the importance of these phenomena for the later stages of digestion, it is well to read first, Herzen: 'La

digestion stomacale,' and secondly, Mad. Potapow ('Thesede,' Lausanne). In these two publications is found a brief and lucid résumé of the principal works of Schiff and Pawlow completed by the observations of the two authors mentioned."

Mastication and Beauty

The relation of mastication to beauty is not apparent at the first glance, but Dr. Harry Campbell, F.R.C.P. (London), in some remarkable articles in the *London Lancet*,[1] shows that they have a very close connection indeed. If the teeth are given plenty of work in chewing, the jaws and all adjacent parts are healthy and fully developed. When mastication is neglected during the growing period, the jaws do not reach their full size, the teeth are crowded and irregular, and the beauty of the lower part of the face is marred. The teeth lose their attractiveness, and decay, drop out, or have to be pulled out. Not only is the beauty of the teeth spoiled, but their health is destroyed, and toothache and much of the so-called neuralgia result.

[1] Observations on Mastication, by Harry Campbell, M.D., F.R.C.P., *The Lancet*, July 11, 18, 25, and August 8, 1903. These articles were inspired by Mr. Fletcher's discoveries, and are given in full in his A. B.-Z. of Our Own Nutrition.

Dr. Campbell attributes a lengthy catalogue of diseases to insufficient mastication. He quotes Sir Frederick Treves and other authorities to show that appendicitis is due to bolting of food; and he thinks that cancer is attributable to the same cause. He says: "I do not propose to discuss here in detail how food is capable of causing appendicitis, but will merely refer to one of the ways in which it may do so. I had already come to the conclusion that the habit of bolting food is a potent cause, when I read Sir Frederick Treves' Cavendish Lecture in which he makes that contention. Sir Frederick Treves points out that in this rushing age people, especially business men, are apt to hurry over their meals and to take them at irregular times and often while standing at a bar; even when there is more leisure, food is rarely masticated nowadays in the same thorough way that it was in the old time, when it was of a coarser nature; hence solid lumps, especially in the case of such articles as pineapple, preserved ginger, nuts, tough meat, and lobster, are apt to pass beyond the pylorus and, escaping intestinal digestion, to lodge in the cæcum and precipitate an attack of appendicitis, the most common predisposing cause of which

is a loaded cæcum, often preceded by constipation."

Dr. Campbell says that there are strong grounds for believing that cancer is attributable to the same cause, and that mastication is becoming a lost art. As mastication is especially necessary for children, he gives some rules that may be useful:

"The child should make his first acquaintance with starch (cereals and other starchy foods), not in the form of a liquid or pappy patent food, but in a solid and somewhat tough form. . . . Hard, well-baked crusts constitute a convenient form in which to administer starch to children. A piece of crust may be put in the oven and re-baked; this not only hardens it, but helps to convert the starch into dextrine, which is a stage on the road to maltose. If the crust be then cut into a suitable shape and spread with bacon fat or fresh butter, it constitutes a most agreeable morsel. Later, we may give hard plain biscuits. The same principle should be acted upon during later childhood and youth: we should always give, as far as possible, the starch in a form compelling abundant mastication. Loaves should be shaped so as to give a maximum of crust and a minimum of crumb, and should be baked

hard. Such loaves are quite as nutritious as the ordinary ones, and much more digestible, containing as they do an abundance of dextrine and a little maltose, and compelling efficient mastication, especially if eaten, as they should be, without any fluid."

Some object to prolonged mastication, urging that it makes them feel sick, and that they feel inclined to put the food away rather than swallow it. Dr. Van Someren, who was the first to bring this subject before the British Medical Association, meets the objection conclusively. He points out that whenever chewing produces any feeling of nausea it is a sign that either the food is not needed by the body or that it contains a harmful element. The initial advantage of subjecting foodstuffs to prolonged contact with the end organs of the nerves of taste is to insure the swallowing of only those food elements that the body requires, and to create a disgust for those which are unnecessary or harmful. Whenever the body requires food, a conclusive sign of such requirement is that the food becomes sweeter and more delicious the longer it is masticated. This process of converting the starchy foods into sugar in the mouth gives an exquisiteness of flavour that comes as a surprise even

to the epicure. A hard crust properly eaten becomes delicious.

It is a very strong point of Mr. Fletcher's system that while he would deprive one of the coarser pleasure (if indeed it be a pleasure) of gobbling or bolting food, or of gulping liquids full of delicious taste if properly sipped, he would substitute for it the most refined epicurean pleasure. Indeed, it may safely be said that a man does not know the delights which taste and eating can bestow until he has tried "Fletcherising" both his food and his beverages. The whole moral of Mr. Fletcher's admirable work, "The New Glutton or Epicure," is to show that by giving up coarse pleasures unintelligently indulged, which bring more or less discomfort, disease, and doctors' bills, one may have the most refined of pleasures, that will give health, efficiency, and a new joy in life.

CHAPTER VI

THE QUESTION OF QUANTITY: THE MINIMUM THE OPTIMUM

IT is in the solving of this problem of "How much should be eaten?" that Mr. Fletcher's discoveries are having the most far-reaching effects. On this question the authorities were formerly utterly at sea, but his demonstrations have put the physiological chemists on the right track, and momentous results have already been achieved.

This raises an interesting point which I had better touch on before I go further, as my own *entrée* into the discussion of these hygienic questions is similarly involved. It is said that amateur astronomers discover most new stars, the explanation being that the professionals are so much engaged in routine work that they have little time for roving expeditions into unknown space. The amateur, on the other hand, has plenty of time for what may often be idle star-gazing, and in this way he hits upon valuable discoveries. The case with physicians seems to be similar; they are so busy with

orthodox work and are so blinded by traditions that it has been left for a layman, under the stress of personal danger and emergency, to make, and to lead others to, some of the most valuable discoveries that have yet been made in this direction. Lest this may seem too much like a layman's prejudiced estimate of a layman's work, I shall quote the words of physicians who have made great discoveries themselves in unexpected fields within their own profession, and who are therefore more intent on getting at the truth than in asking the professional status of the man who discovered it.

Dr. Hubert Higgins, M.A. Cantab., M.R.C.S., L.R.C.P., who has himself received great benefit from Mr. Fletcher's suggestions, says: "The phenomena that have resulted from the more thorough insalivation and mastication of food can only be described as remarkable and of the highest importance for the progress of that most important of all sciences, the right conduct of life. . . . A method having the results that this has, it need scarcely be said, is revolutionary; all one's preconceived notions of the conduct of life are found to be open to grave criticism."

Dr. Edward Hooker Dewey, of "The No-Breakfast Plan" and "The Fasting Cure," which have produced such wonderful results and have opened up a most promising field of research, says: "In the line of dietary form, Mr. Fletcher has done better work than the entire medical profession has done from the dawn of history. The matter of thorough mastication, as unfolded and insisted on by Horace Fletcher, is the greatest practical physiology that a dyspeptic, gluttonous world has ever received. The discovery of the importance of mouth work, in saving the strain of overwork in the stomach and in the intestines, will do more to prevent disease than all other precautions. This is all the more wonderful when it is considered that Mr. Fletcher is a layman."

Dr. J. H. Kellogg, of the great Battle Creek Sanitarium, who is a host in himself and is doing splendid work in the world, is equally emphatic in his commendation of Mr. Fletcher's work. He says: "I am confident you have discovered a great and important principle, and I shall watch future developments with interest. . . . I want to give the widest possible publicity to your work. I find great good in it. I am talking to my patients continually about it. . . .

I know from my own experience that you are right. . . . I think your chewing reform is of more importance to the world than you realise. . . . You deserve to have your name immortalised, as Pasteur's has been."[1] This generous recognition from so distinguished a practitioner shows the large-mindedness of the man, and gives additional weight to his words.

These were among the earlier recognitions; since then Mr. Fletcher has been winning scientific indorsement on all sides. Thus, he has shown that a layman can not only make some of the most valuable discoveries, but can also, by study, intellectual eclecticism, and American business methods of getting at "the bottom of things," extract all that is best even from medical knowledge, and avoid the hoary errors which still handicap so many medical men. We must remember, too, the vast difference between medicine and surgery. The latter is a science, while the former is a self-discredited art for some of the first principles of which the "profession" are still groping. For a layman to interfere in surgery *might* be

[1] Quoted in The New Glutton or Epicure, by Horace Fletcher. A. B. C. Life Series. Frederick A. Stokes Company, New York.

criminal, — although a Boston lawyer has perfected a mechanical device for correcting congenital dislocation of hip joints, for use on his own afflicted children, whom the great Viennese surgeon Lorenz dared not operate upon, and the lawyer's device, which performed the cure completely, has been scientifically accepted. But in medicine, where the case is quite different, the proverbially differing doctors have given the layman a footing. And when the layman leads us back to nature, guided only by natural clues, he is likely to be a truer guide than some of the old-fashioned practitioners who are blinded by learned ignorance.

The Minimum the Optimum

As I said prior to this digression, it is on the question of the right quantity of food that the authorities have erred most seriously, as shown by recent exhaustive examination of the subject. This has been proved conclusively by Professor Chittenden's experiments, to which I shall presently refer.

The standards of the amount of food needed to produce the best physiological results, given by the highest authorities on dietetics, have been arrived at by observing what men habit-

ually eat rather than by scientific experimenting to determine their real needs. As soon as these standards are put to the test they are found to be faulty and gravely misleading. The few figures I am about to give will afford but little positive knowledge to the general reader; but their comparative values will be apparent at a glance.

To make the figures more easily understood it might be well to explain that the term "proteid" means the albuminous elements in food absolutely necessary to support life. Proteid builds up the tissues, repairs waste, and also provides some heat if it is lacking from other sources. The fats and carbohydrates, which make the great bulk of the foods, are little more than fuel for keeping up the heat of the body. This bit of technical knowledge is necessary in order to understand the importance of recent experiments. But the great merit of Mr. Fletcher's system is that it is quite unnecessary to trouble one's self about dietary details. He has discovered safer guides than any half-knowledge we at present possess; and the standards of economy established by him through the guidance of natural instincts form the basis of later scientific inquiries.

Proteid in varying proportions is found in all foods. According to Dr. Hutchison, there is most of it in cheese, and it diminishes in order in the following foods: pulses (peas and beans), nuts, meat, eggs, and grains. There is a fair amount in bread and other grain products, and very little in fruit and many of the vegetables. But all these foods contain other elements of value, such as mineral salts; and the golden rule is to vary your food within the range of appetite so as to allow Nature to select what she needs.

Suffering from dyspepsia, I once went to a distinguished physician. He was too wise to give me drugs, but prescribed a strict course of dieting. This I followed for a time with great benefit. But as I soon fell back and became gradually worse, I changed advisers and went to Sir Andrew Clark. He diagnosed the case as the other had done, but he put me on a dietary regimen as different as possible from that prescribed by the other. What one told me to take, the other told me to avoid! I tried the new system with like results; for a time I became better, then worse. I came finally to the conclusion that *change of diet* was beneficial, and that monotony was to be avoided; and subsequent experi-

ence has proved that I was right. Variety is essential, — not necessarily at one meal or in one day; but from day to day, and week to week, or, more likely, from season to season, sufficient change should be made to give that greatest of all physiological chemists — Nature — a chance to select the elements really needed for keeping the body in its best condition.

As I have already said, the question of prescribed quantity is of secondary importance because thorough mastication limits the quantity that appetite will tolerate to the amount actually needed. On this point the authorities have erred most seriously. According to Voit, Atwater, and other credited students of dietetics, an average man requires from 100 to 150 grams of proteid or albuminous food per day. Together with other foods, this gives a fuel value of from 2324 to 4500 calories, — every authority giving a different standard between these extremes. Voit's estimate for the average man doing average muscular work is 118 grams of proteid, which with other foods gives a total fuel value of 3000 calories, — the happy mean between these various standards.

Mr. Fletcher, while under the observation

of Professor Chittenden, at Yale University, maintained his weight on an average of 44.9 grams of proteid, and 1696 units (calories) of heat values. This is about one-third of the amount of proteid declared necessary for a man of his weight, and about half the amount of other food or heat elements. During this time Mr. Fletcher, although then in his fifty-fourth year, went through all the setting-up exercises given to the varsity crew; and he performed them not only with ease, but without any stiffness afterwards. The absence of stiffness, even as the result of the use of unaccustomed muscles, which is believed by physiologists to show an actual poisoning of the muscles, is a significant and valuable result of "Fletcherising."

Dr. Van Someren, Mr. Fletcher's able co-worker, gives some valuable evidence on this point. Although a young man, a practising physician and surgeon, he was suffering from gout, dyspepsia, and other troubles, until he met Mr. Fletcher. With his rapid insight he saw the value of the new system, tried it, and soon became a new man, with a new interest in life; and he gained also one of the most valuable of all remedies for his patients. He was the first to bring the sub-

ject before the British Medical Association in 1901; and he is now carrying forward in practice the further study and use of auto-nutrition, which, according to Dr. Edward Hooker Dewey, needed only the addition of Mr. Fletcher's discovery of the efficiency of careful mastication in limiting and digesting food to make it one of the most hopeful systems at present above the medical horizon. In his remarkable paper read before the Physiological Section of the British Medical Association, entitled, "Was Luigi Cornaro Right?"[1] Dr. Van Someren gives some of his own experiments dealing with the question of the quantity of food. He says:

"The following table contains the résumé of two experiments in which a state of complete nutritive equilibrium was maintained by individuals of about the same weight, on widely different quantities of food similar in quality. The subjects of the experiments were a laboratory assistant of Dr. Snyder, of the United States Department of Agriculture, and the writer (Dr. Van Someren). The experiment of the former was made primarily to show the

[1] The remarkable evidence of Mr. Edison, the greatest of workers and inventors, is given at the end of this chapter.

relative digestibility of the several articles of diet, eggs, milk, and cream:

	Dr. Snyder's Experiment	Writer's Experiment
Age of subject	22 years	30 years
Duration of experiment	4½ days	5 days
Number of meals . . .	13	10
Weight at the beginning	62.5 kilos	57.3 kilos
Weight at end	62.6 kilos	57.5 kilos
Potatoes (daily average)	1587.6 grammes	159.4 grammes
Eggs (daily average) .	411.08 grammes	124.7 grammes
Milk (daily average) . .	710 c.c.	710 c.c.
Cream (daily average) .	237 c.c.	237 c.c.
Daily urine	1108 grammes	1098 grammes
Daily fæces	204	18

"The daily diet of Dr. Snyder's subject consisted of three and one-half pounds of potatoes, eight eggs, a pint and a half of milk, and half a pint of cream. The writer's (Dr. Van Someren's) diet of twelve ounces of solid food (like Luigi Cornaro's) consisted of three eggs, the remainder of the twelve ounces in potatoes, and an equal quantity of similar liquid food to that taken by Dr. Snyder's subject. The exercise of the laboratory assistant comprised his daily routine of laboratory work, while that of the writer consisted of six sets of tennis, or an hour and a half on horseback, with an hour to an hour and a half's walk or

climb daily, in addition to much reading and writing."

These are striking figures, and show that Dr. Van Someren, on about one-third of the quantity of food, did nearly three times the amount of work, and slightly increased his weight. Results equally remarkable were obtained by Professor Chittenden in his valuable series of experiments at the Sheffield Scientific School, Yale University, which he details with such thoroughness in his great work: "Physiological Economy in Nutrition."[1] He says:

"The experiments have been conducted with three distinct types or classes of individuals:

"1st. A group of five men of varying ages, connected with the University as professors and instructors; men who, while leading active lives, have not engaged in very active muscular work. They were selected as representatives of the mental worker, although several of them in the performance of their daily duties had to be on their feet in the laboratory a good portion of the day.

"2d. A detail of thirteen men, from the Hospital Corps of the United States Army, and representatives of the moderate worker;

[1] Frederick A. Stokes Company, New York; William Heinemann, London.

men who for a period of six months took each week day a vigorous amount of systematic exercise in the gymnasium, in addition to the routine work connected with their daily life as members of the United States Hospital Corps. These men were of different nationalities, ages, and temperaments.

"3d. A group of eight young men, students in the University, all thoroughly trained athletes, and some of them with exceptional records in athletic events."

Professor Chittenden, realising his responsibility in the matter, had previously given the system a long trial on himself. He had previously taken about the amount of food prescribed by the authorities.

"Recognising," he says, "that the habits of a lifetime should not be too suddenly changed, a gradual reduction was made in the amount of proteid or albuminous food taken each day. In the writer's case this resulted in the course of a month or two in the complete abolition of breakfast, except for a small cup of coffee. A light lunch was taken at 1.30 P.M., followed by a heavier dinner at 6.30 P.M. Occasionally, however, the heartier meal was taken at noontime, as the appetite suggested. It should be added that the total intake of food was gradu-

ally diminished, as well as the proteid constituents. There was no change, however, to a vegetable diet, but a simple introduction of physiological economy. Still, there was and is now a distinct tendency toward the exclusion of meat in some measure, the appetite not calling for this form of food in the same degree as formerly. At first this change to a smaller amount of food daily was attended with some discomfort, but this soon passed away, and the writer's interest in the subject was augmented by the discovery that he was unquestionably in improved physical condition. A rheumatic trouble in the knee joint, which had persisted for a year and a half and which only partially responded to treatment, entirely disappeared (and has never returned). Minor troubles, such as 'sick headaches' and bilious attacks, no longer appeared periodically as before. There was greater appreciation of such food as was eaten; a keener appetite and a more acute taste seemed to be developed, with a more thorough liking for simple foods.

"During the summer the simple diet was persisted in, — a small cup of coffee for breakfast, a fairly substantial dinner at midday, and a light supper at night. Two months were spent in Maine at a fishing resort, and during

a part of this time a guide was dispensed with and the boat rowed by the writer frequently six to ten miles in a forenoon, sometimes against head winds (without breakfast), and with much greater freedom from fatigue and muscular soreness than in previous years on a full dietary. The test of endurance and fitness for physical work which the writer thus carried out 'on an empty stomach' tended to strengthen the opinion that it is a mistake to assume the necessity for a hearty meal because heavy work is about to be done. It is certainly far more rational from a physiological standpoint to leave the hearty meal until the day's work is accomplished. We seemingly forget that the energy of muscular contraction comes not from the foodstuffs present at the time in the stomach and intestinal tract, but rather from the absorbed material stored up in the muscles and which was digested and absorbed a day or two before. Further, it is to be remembered that the very process of digestion draws to the gastro-intestinal tract a large supply of blood, and that a large amount of energy is needed for the processes of secretion, digestion, absorption, and peristalsis, which are of necessity incited by the presence of food in the stomach and intestine, thereby actually

diminishing the amount of energy available at the place where it is most needed. Why, then, draw upon the resources of the body just at a time, or slightly prior to the time, when the work we desire to perform, either muscular or mental, calls for a copious blood supply in muscle or brain, and when all available energy is needed for the task that is to be accomplished?" [1]

This is an important point, and Professor Chittenden gives weighty reasons for beginning the day's work without food. He found by his experiments on himself that he obtained the best results on about one-third of the amount of food, especially proteid (meat or albuminous foods), given as necessary by the accepted standards. He found, also, that with the smaller intake of strong food, he had less thirst or desire for liquids of any kind.

The temperance reformers declare that it is the strong food that gives rise to the desire for strong drinks, and incites the "whiskey appetite." Professor A. T. Jones says that Mr. Fletcher, by insisting on the necessity of chewing, or subjecting to mouth action, all fluids

[1] Physiological Economy in Nutrition, by Prof. R. H. Chittenden, Ph.D., LL.D., Sc.D. Frederick A. Stokes Company, New York.

having taste and therefore nutriment, has done more for temperance than any one else, as you cannot attempt to "chew" whiskey without arousing a dislike for it.

The results Professor Chittenden obtained in himself were repeated with very little variation in the case of the professional men, or brain-workers, who went through the long course of experiments. All were benefited mentally and physically by the lessened intake of food.

The thirteen men from the Hospital Corps were at starting a miscellaneous lot of men, but under Professor Chittenden's régime and the severe work in the gymnasium, their improvement was remarkable. The report of Dr. W. G. Anderson, Director of the Yale University Gymnasium, is emphatic on this point. Professor Chittenden says:

"The main things in Dr. Anderson's report especially to be emphasised are:

"(1) The gain in self-reliance and courage of the men under training, indicative as they are of the better physical condition of their bodies, and

"(2) The marked increase in their strength as indicated by the steady improvement in strength or dynamometer tests. . . .

"The figures showing the total strength of

the men in October, 1903, on their ordinary diet, and on the second day of April, 1904, when the experiment was nearing completion, are certainly very impressive.

TOTAL STRENGTH

	October	April
Henderson	2970	4598
Oakman	3445	5055
Morris	2543	4869
Zooman	3070	5457
Coffman	2835	6269
Steltz	2838	4581
Loewenthal	2463	5277
Sliney	3245	5307
Fritz	2504	5178
Cohn	2210	4992
Broyles	2560	5530

"Here we see gains in strength of 100 per cent in some cases, while Coffman shows an improvement so marked as to be almost marvellous."

These dynamometer tests were very thorough, trying the men's strength in every way; and while these units of measurement will not convey any positive idea of the actual strength of the men, yet their relative strength before and after the experiment is shown quite plainly.

The New Training

While these results are sufficiently remarkable, the chief surprise was furnished by the trained athletes. These men were "in the pink of condition" when judged by the old standards; but under the new régime they showed the same remarkable ratio of improvement. The men represented nearly all phases of athletics, from the herculean wrestler, Stapleton, to the all-round athlete and the wire-drawn runner.

Professors Atwater[1] and Sherman made observations on the amount of food taken by professional bicycle riders during a six-day race. "M" in one day took 8355 grams[2] of food, and rode 334 miles. "A," who rode 352 miles, took 3851 grams of food. Thus the man who took little more than one-third of the mass of food taken by his rival rode 18 miles further. These are significant figures. But we must remember that bicycle riding, while producing some nervous strain, exercises the body and the arms little more than the lightest of light occupations; on the legs alone falls the great strain of the exertion. Under the new system of diet originally established through

[1] U. S. Department of Agriculture, Office of Experiment Stations, Bulletin 98. Quoted by Professor Chittenden.

[2] About 19¼ pounds!

careful mastication, Stapleton, the herculean wrestler, and wrestling instructor at Yale University, undergoing meanwhile the severe all-round work of the gymnasium, only took 2831 grams of lighter food; while other athletes, doing heavy exercise in their various special lines, took considerably less, one taking as little as 1453 grams. Yet these men — trained athletes of years' standing — were stronger and fitter than they had ever been under the old system of training. I designate only the bulk of the food, not its constituents; but the food was so varied in each case that a detailed analysis of its chemical elements would not materially affect the argument.

The athletes were first tested under their old system of diet, and then the men, who co-operated heartily and intelligently, gradually reduced the amount of food (especially the nitrogenous or proteid-bearing foods) to about one-half the amount; some of them voluntarily gave up meat altogether. In every case great benefit resulted, as shown in the report of Dr. Anderson, Director of the Yale Gymnasium. The improvement in strength during the six months of the new dieting, as shown by the dynamometer tests, is given in the following table:

	January	June
Mr. G. W. Anderson, foot-, base-, and basket-ball player, etc.	4913	5722 + 809
Mr. W. L. Anderson, Capt. Yale Gymnastic Team, etc.	6016	9472 + 3456
Mr. H. S. Bellis, gymnast and acrobat, always in training	5993	8165 + 2177
Dr. W. H. Callahan, bowling, hand-ball, running, etc. .	2154	3983 + 2729
Mr. M. Donahue, strong, all-round athlete	4584	5917 + 1333
Mr. C. S. Jacobus, great long-distance runner, etc. . .	4548	5667 + 2229
Mr. H. R. Schenker, inter-collegiate point-winner . .	5728	7135 + 1407
Mr. J. Stapleton, great wrestler and professional gymnast .	5351	6833 + 1482

This advance of Mr. Stapleton's from 5351 to 6833 was afterwards raised to over 10,000. These are notable figures. Here we have eight highly trained men reducing their food to little more than one-third of what they were accustomed to regard as the right quantity, and on this they maintain their weight and increase their strength, the lowest by 809, and the highest by 3456 points, as tested by the dynamometer.[1]

[1] Totals in dynamometric measurements are a guide to comparative muscular strength, and are modified by speed in running, etc.

Throughout this great work of Professor Chittenden's, which must mark a turning point in athletic training and prescribed dietaries, he has done but scant justice, I think, to the source of his inspiration, as he was proving on a large scale what Mr. Fletcher and Dr. Van Someren had demonstrated on a smaller one. And although Professor Chittenden is himself the most thorough-going of Fletcherisers in mastication, as the author has personally observed, Professor Chittenden left that point out of his experiments. This, as he says, he did to concentrate on the one point of quantity, and not allow the discussion to ride off on a side issue. It is well known that in case the economic supply of food elements is prescribed the digestive apparatus will care for them, with its supplementary arrangements, but without mastication one needs a chemist to prescribe. There can be little doubt that had he insisted on thoroughness of mastication his results would have been even more astonishing.

Dr. J. H. Kellogg, the organiser and presiding genius of one of the most remarkable institutions in the United States devoted to natural methods of attaining health, the Battle Creek Sanitarium, is an enthusiastic Fletcheriser. With the minimum of noise and con-

fusion he is yet a hurricane worker, accomplishing an immense amount of work every day of the year. Writing recently, he said:

"By the way, you [Mr. Fletcher] asked me at St. Louis about the amount of food I was eating. Since the first day of November I have been taking careful note of everything I ate. I find my average is 1200 calories a day. Many days I ate only 800 calories. [3000 to 3436 and even higher are the amounts given by the "authorities" as being the minimum standard.] Sometimes the amount has increased to 1400 or 1600, and one day, I think, 1800 calories. I eat a breakfast consisting of apples and grapes, or a little fruit of some other kind; then I eat dinner at one o'clock. I eat nothing more. I eat nothing after my one o'clock dinner. I hold my weight, and get just as much work out of myself every day as is possible."

The Minimum of Waste

One remarkable result of thoroughly masticating food and taking only the right amount, is that it is nearly all assimilated, the waste products are reduced to a minimum, and they are quite inoffensive. As Sir Michael Foster says: "One fact fully confirmed by the Cam-

bridge observations consists in the effect of the special habits described upon the waste products of the bowel. These are greatly reduced in amount, as might be expected; but they are also markedly changed in character, becoming odourless and inoffensive, and assuming a condition which suggests that the intestine is in a healthier and more aseptic condition than is the case under ordinary circumstances."

If these results were generally attained, all sanitary problems would be greatly simplified, and the terrible loss of life from unsanitary military camps would be greatly reduced.

The great saving in cost of food, in trouble, and the saving of nervous and physical energy required in forcing superfluous food through nearly thirty feet of the alimentary canal, makes this simple system as nearly a veritable panacea as we are likely to get in this world of extravagance and artificial tastes.

A remarkable feature of this system of natural economics is that it sweeps away a whole host of hampering fads and prescriptions, and puts each under the direct care of the best physician in the world — Dr. Nature. A critical period of life is just when we cease to grow. The amount of food needed by the wonderfully active growing youth is dangerously

excessive when growth has ceased. But the habits acquired during the growing period are too apt to be continued afterwards, through force of habit, and this lays the foundation of the subsequent internal troubles. We still believe we need the usual amount of food, and the stomach even seems to crave it; but this is as false as the craving for stimulants, or any other bad-habit craving to the habitually over-indulgent. Once we get rid of this false *habit-hunger* we put ourselves into line with Nature and obtain the full benefit of her guidance. It matters little what we eat, within the range of appetite. Nearly all depends on *how* we eat it, and on taking only the right amount, which an appetite aided by mastication will rightly determine. Nature has given us the best of prescribers within us, if we will only heed her behests. Once we get rid of bad habits and false cravings, *the appetite is the best possible guide to the body's real needs.* This is revolutionary doctrine, but it is true. As in gestation the mother's needs for certain foods are often so imperative that, if denied, the offspring may be marked for life; so have we guiding food-instincts within us if we will but listen to their still small voice.

The old-fashioned idea is that whatever we

wish for is bad for us; and many a child has had its constitution ruined from denial of the food it craved. Mr. Fletcher lets his eye rove over the bill of fare and allows his appetite to decide, and it often selects the oddest or the simplest things; then they are enjoyed with a relish no artificial gourmand can command. In the instinct expressed by normal appetite we have the safest guide of all.

The rule deduced from the experiments is not to worry about your food, and *never to eat* when you are worried about anything else. Mr. Fletcher puts it in jingling form easy to memorise: "Do not eat when you are mad, or sad; only when you are glad." Any emotional shock will instantly arrest digestion. Worry will produce indigestion; and, curiously enough, indigestion will reciprocally produce worry. Oftentimes, unless we are on guard against it, the outlook grows dark and threatening; seen and unseen dangers lurk ominously and menace all our cherished plans. We look on the dark side of things and see the worst. This disease, for disease it is, might really be called *Pessimitis,* as it is the morbid state from which pessimism springs.

This malarial condition often arises from intestinal indigestion, where superfluous or

unmasticated food, which passes through the alimentary canal undigested, is being reduced by the putrefactive action of bacteria. This state of things is a potent cause of sleeplessness. It produces poisonous products, and these circulating through the system give rise to a form of blood-poisoning which depresses the mind and the system generally, and causes the gloom and the pessimistic forebodings which prove to be so groundless and silly when the indigestion passes and we once again bask in mental sunshine.

Another point should be mentioned which is the only one on which I differ in practice from Mr. Fletcher and Dr. Van Someren. Mr. Fletcher avoids talking as much as possible while eating, for the purpose of deriving the keenest enjoyment from taste in order to best stimulate gastric digestion *à la* Pawlow. Dr. Van Someren generally dines in silence, deeply immersed in a book. With me, however, silence at meals tends to depression, and to read at or immediately after meals arrests my digestion utterly. This shows how greatly constitutions differ, and how wise Mr. Fletcher is in avoiding hampering prescriptions and in laying down only general principles which each one must apply to his individual needs. But

there can be little doubt that bright, cheerful talk, absorbing the time and otherwise occupying the jaws, has deprived heavy dinners of some of their fatal effects. If these great functions were always performed in funereal silence, funerals would undoubtedly multiply. In this regard, as in so many others, one should try for himself which plan suits him best.

It is said that the man who is his own lawyer has a fool for a client; but the man who is his own physician has probably a very wise man for his patient. As I shall attempt to show later, a man in his own mental forces has a grand physician always at his service.

This chapter is too long and too full to summarise; but the reader will have no difficulty in gathering practical pointers for his own guidance. This is a matter for personal testing. Try it, and the beneficent results will astonish you. It has been proved to be equivalent to a full 20 per cent rise in wages to day-workers, on account of the saving in cost of living, and much more in increased efficiency.

To the rich man the gain is equally great in other ways. It saves doctor's bills, and those periods of enforced rest, or of physical or nervous breakdown, to which the strenuous

brain-worker is so liable, and which may, and generally does, happen just at important crises in affairs.

It should greatly simplify the feeding of armies. At present more than half the food is worse than wasted; being wrongly eaten it gives rise to intestinal troubles, which are much more fatal than bullets.[1] It was noticed during the Boer War that the British soldiers, when they were reduced to a single hard biscuit a day, felt an extraordinary sense of brightness and exhilaration. This was attributed to the air of the Veldt; but these are the favourable symptoms which always appear when an excessive burden is removed from the human stomach, which, as Abernethy said, is "more overloaded than any ass in the world."

This revelation of the natural economy carries the germs of an economic revolution for Great Britain, since, if people would practise intelligent physiological economy in nutrition, England could easily supply herself with food under stress of isolation. The wasted food is more than enough to feed every hungry person in the land.

This rational system asks us to forego coarse,

[1] See From Tokio through Manchuria with the Japanese, by Dr. Major Louis L. Seaman (Appletons).

exhausting "pleasures" that lower efficiency and bring the most painful of diseases; in return it offers the most exquisite pleasures that taste can bestow, with a great increase of health, happiness, and efficiency. It does not ask for the slightest increase of outlay, but saves money in many ways, and offers to all an exhilarating sense of well-being that comes as a genuine surprise.

Surely no system in this world asks so little and offers so much!

"The Country is Food-drunk!"

(EDISON on Eating)

The great Thomas Alva Edison, the Napoleon of inventors, has recently given remarkable corroborative evidence on the question of the right quantity of food needed by the brain-worker. He is a follower of Luigi Cornaro, and he made or indorsed the above striking phrase: "The country is *food-drunk!*" A writer in the *New York World*, Mr. James Creelman, gives the results of a most interesting interview with the great worker, which was reprinted in the *London Daily Mail*.

Mr. Edison, in his fifty-ninth year, is described as bright, vigorous, fresh-coloured, and

alert as a youth, with eagerness of interest in all things pertaining to his work. Everything he says has the mark of sincerity. He declared: "I have investigated the subject enough to know that a man cannot do good, clear, logical brain-work with his stomach full of undigested food." Having contracted an acute stomach trouble, as he believes, through his work with the X-ray, he began to experiment with his diet. He had always been a light eater (one secret of his mighty brain power), but decided to cut down his food still more. "For two months I lived on four ounces of food for each meal. That made twelve ounces of food a day. Of course I varied my food. I would take a teaspoonful of peas, a small piece of toast and caviare, a tiny sandwich, a little bit of ham, a fragment of rye bread with Swiss cheese, and so on. . . . At the end of two months of this diet I weighed just as much as when I began, exactly 185 pounds. I found that living on twelve ounces a day for four weeks had made me mentally brighter, and had diminished neither my strength nor my weight." During this time he worked as hard as ever; and his capacity for work is phenomenal.

Mr. Edison then briefly referred to Luigi Cornaro, who is thus spoken of by Dr. Van

Someren, in the paper in which he introduced Mr. Fletcher's experiments to the British Medical Association: "Luigi Cornaro (1467–1566) was a Venetian nobleman, famous for his treatises on a temperate life. From some dishonesty on the part of his relatives, he was deprived of his rank and induced to retire to Padua, where he acquired the experience in regard to food and regimen which he has detailed in his works. In youth he lived freely, but after a severe illness at the age of forty, he began under medical advice gradually to reduce his diet. For some time he restricted himself to a daily allowance of twelve ounces of solid food and fourteen ounces of wine. Later in life he still further reduced his bill of fare, and he found that he could support his life and strength with no more solid meat than an egg a day. So much habituated did he become to this simple diet that when he was about seventy years of age the addition, by way of experiment, of two ounces a day nearly proved fatal. At the age of eighty-three he wrote his treatise on the 'Sure and Certain Method of Attaining a Long and Healthful Life.' And this work was followed by three others on the same subject, composed at the ages of eighty-six, ninety-one, and ninety-five

respectively. 'They are written,' says Addison, 'with such a spirit of cheerfulness, religion, and good sense as are the natural concomitants of temperance and sobriety.' He died at the age of ninety-eight, — some say of one hundred and three!" After referring to the above facts, Mr. Edison continued:

"Now, my father lived to be ninety-four years old. My grandfather lived to be a hundred and two years old. My great-grandfather lived to be a hundred and four years old. All three were disciples of Cornaro and lived according to his ideas." When Mr. Edison was eating only twelve ounces of food a day he was taking no exercise; had he been doing physical work he would, as he says, have needed more food. For big eaters plenty of exercise is an absolute necessity. He says that the average machinist eats thirty or forty (he might have said fifty or seventy-five) per cent too much. "He would be a stronger, brighter, and happier man on less food."

"It is simply appalling to know how professional men and others who do little physical work stuff themselves. There is no sense in it. It means dulness, disease, and early death. It is an extraordinary thing to observe how great business men, the lawyers, doctors, and

clergymen, men who show the highest intelligence in ordinary matters, continue to sin against nature by overeating. The slightest practical investigation of the evidence on the subject would prove to them that they are clogged up with undigested food. A short trial of a scantier diet would improve their mental and physical condition and make work a pleasure to them. Yet they go right on filling themselves up simply to gratify an appetite born of habit."

Such corroborative testimony as to the soundness on the main contentions of this chapter from one of the greatest inventors and workers is of the highest possible value. The power of work conferred by his light diet is amazing. When he was at the incandescent electric light problem, he worked, he says, for five days and nights without sleep and with very little food, and did as good work under those conditions as he ever did in his life. After that he had twenty hours sleep; but "it was a fine, deep, refreshing sleep. After I got up I went at my work as strong and as keen as ever." Here is a "specimen day" of this advocate of the strenuous but simple life:

"Here I am, a man approaching sixty years, and see how strong and active I am. The

greatest pleasure in my life is work. I get out of bed at five in the morning, take a walk out among the trees and birds, and wait around, reading the newspapers, until the folks get up, which is about 6.30 o'clock. Then I take my breakfast with them and go to work. I keep at my task until about six in the afternoon. Then I go home to dinner. I generally get to the table when the dessert is being served, and I am through my meal as soon as the others. Then I get out my notebooks and work until eleven or twelve o'clock at night preparing for the next day. After that, bed and a fine sleep. That 's the way to live if you wish to accomplish anything."

This is the sort of man two or three generations of Fletcherism would produce; and Mr. Edison may thank the abstinence from overeating of his centenarian ancestors, and his own abstinence, for this power of living an extra strenuous life without the breakdown which generally dogs the strenuous life in America. Edison believes that the harder the work the longer the life, and that when men complain of overwork it is really overeating that is the trouble. That he himself should be able to keep up three-man-power of work to such an age is remarkable. In my own student days

I used to get up between three and four o'clock in the morning and work until eleven at night, but I could not do it now.

The value of a long interval between meals for the brain-worker is shown by the genial Mark Twain, one of the world's great benefactors, since laughter is one of the best of all medicines. This laughter-evoking genius said, on attaining his seventieth birthday, that he had his coffee and toast at eight o'clock in the morning, and then ate nothing until after seven in the evening, and that he had never had a headache in his life.

CHAPTER VII

THE HEROIC CURE

If a person avails himself of the hints given in the previous chapters he is not likely to need any form of cure. But it is one thing to know the right and quite another to do it. The habits of a lifetime are not easily corrected; and the eager spirit too often forgets or disregards the needs of the body, and trouble ensues. In such cases it is well to know of a cure, entirely in agreement with what has already been presented, and one which has greater promise than anything at present above the medical horizon. It is also one that puts us under the care of that wonder-worker Nature, or I should certainly have nothing to say in its favour.

Some years ago Dr. E. Hooker Dewey of Meadville, Pennsylvania, U. S. A., became sceptical of orthodox medical methods and remedies. They seemed to him barbarous and inefficient. His disbelief in drugs steadily grew, until one day he came upon the following

case, which invited serious study, and ultimately led to momentous results. He says:

"I was one day called to one of the families of the poorest of the poor, where I found a sick case that set me to thinking. The patient was a sallow, overgrown girl in early maturity, with a history of several months of digestive and other troubles. I found a very sick patient, so sick that for a period of three weeks not even one drink of water was retained, not one dose of medicine, and it was not until several days more that water could be borne. When finally water could be retained, my patient seemed brighter in mind, the complexion was clearer, and she seemed actually stronger. As for the tongue, which at first was heavily coated, the improvement was striking; while the breath, utterly foul at first, was strikingly less offensive. In every way the patient was very much better.

"I was so surprised at this that I determined at once to let the work go on on Nature's own terms; and so it did until about the thirty-fifth day, when there was a call, not for the undertaker, but for food, — a call that marked the close of the disease. The pulse and temperature had become normal, and there was a tongue as clean as the tongue of a nursing infant. Up

to this time this was the most severely sick case I ever had that recovered, and yet with not apparently more wasting of the body than with other cases of as protracted sickness in which more or less food was given and retained. And all this with only water for thirst until hunger came and a complete cure!" [1]

This upsetting of all orthodox ideas came as a revelation to the doctor. Here was a patient living for thirty-five days on nothing but water, and instead of dying of starvation she was completely cured, and had no desire for food until Nature had completed her work of repair.

Similar experiences were met with again and again in the good doctor's practice; and even more remarkable cases occurred with a scientific young disciple of his.

"Believing," he says, "that I had made a most important discovery in physiology, one that would revolutionise the dietetic treatment of the sick, if not utterly abolish it, my visits to the sick became of unsurpassed interest. I watched every possible change as I would an unfolding of new life, seeing the physical

[1] The No-Breakfast Plan and The Fasting Cure, by Edward Hooker Dewey, M.D. Published by the Author. Meadville, Pa., U. S. A. Sold by L. N. Fowler & Co., Imperial Arcade, Ludgate Hill, London, England.

changes only as I would see the swelling buds evolve into the leaves or flowers, reading the soul-and-mind changes in the more radiant lines of expression. I saw all these things with the naked eye, and more and more marvelled at the bulk of our materia medicas, the size of our drugstores, and the space given to healing powers in all public and medical prints.

"For years I saw my patients grow into the strength of health without the slightest clue to the mystery, until I chanced to open a new edition of Yeo's "Physiology" at the page where I found this table of the estimated losses that occur in death after starvation:

Fat	97 per cent.
Muscle	30 " "
Liver	56 " "
Spleen	63 " "
Blood	17 " "
Nerve-centres	0 " "

"And light came as if the sun had suddenly appeared in the zenith at midnight. Instantly I saw in human bodies a vast reserve of predigested food, with the brain in possession of power so to absorb as to maintain structural integrity in the absence of food or power to digest it. This eliminated the brain entirely

as an organ that needs to be fed from light-diet kitchens in times of acute sickness. Only in this self-feeding power of the brain is found the explanation of its functional clearness where bodies have become skeletons.

"I could now go into rooms of the sick with a formula which explained all the mysteries of the maintenance and support of vital power and cure of disease, and which was of practical avail. I now knew that there could be no death from starvation until the body was reduced to the skeleton condition; that therefore for structural integrity, for functional clearness, the brain has no need of food when disease has abolished the desire for it. I could know that to die of starvation is a matter not of days, but of weeks and months; certainly a period far beyond the average time of recovery from acute disease."

He discovered that each one of us has stored-up food-capital enough to last us from sixty to one hundred days; so that for that time we can live on nothing but water, not only without mental loss, but with a great increase of clearness of mind and mental alertness. Since the digestion of food costs a great expenditure of both nervous and physical energy, it is manifest that if we can live on our food-

capital, Nature can use the whole of this energy to aid her recuperative powers, her power of self-healing.

There is a vague idea current that doctors *cure* disease. The most that they themselves claim is that they are able to assist Nature; the healing and repairing has to be done by the self-same power that builds and sustains our bodies, heals our wounds, and generally manages to keep us in fair working order in spite of our blundering ignorance. When Nature takes away our appetite in sickness she gives us hints which have been badly neglected. When acted on and no food is taken, Nature has all her energies to devote to the work of cure, to repairing the internal machinery, to building up new tissues and putting us in thorough working order. As soon as this work is complete, but not till then, does the appetite return. Nature then calls for food, and if given with due care, of the kind the appetite demands, and duly Fletcherised, the cure is complete, and Nature will again store up food-capital against the next emergency. This is certainly one of the most remarkable discoveries in the entire history of medicine.

A truly remarkable case has come to some extent under my own observation. A dis-

tinguished American, one whose eager, tireless spirit would wear out the strongest of bodies, or half a dozen bodies if it could inhabit and use them in turn, had to pay the penalty of the too strenuous life. Although he came of a splendid stock, the wear and tear of the high-pressure work in the United States brought on a complication of internal troubles, which under ordinary treatment might have soon ended his valuable life. Starting for Europe for the needed rest, he travelled by the Southern route and through Italy during the hottest months of a hot year (1904), and arrived at Venice in a high fever. He placed himself in the hands of the English physician, Dr. Van Someren, Mr. Fletcher's co-worker. For three years this doctor had been tentatively applying Dr. Dewey's principles with invariable success.[1]

[1] Dr. Van Someren was so struck with the invariably successful results of entire abstinence from food in the treatment of diseases, where the prominent symptom was loss of appetite, that he determined to make as exhaustive a study as he could of the literature dealing with the physiological and the clinical aspects of Abstinence, Famine, Fasting, Hunger, Hibernation, and Inanition. In London, finding that the Army Medical Department's Library in Washington was the richest in the literature of these subjects, he went there. His study of the subject, in four languages, led him to the conclusion that in all diseases in which appetite is in abeyance, and in those where it is variable or capricious, complete abstinence, or as he prefers to call it auto-nutrition, being induced,

After explaining them in their simplicity to his patient, the latter determined to adopt the seemingly heroic treatment. He totally abstained from food, and in twenty-four hours the fever had quite left him.

This contrasts strongly with another case I came in contact with in America. A gentleman who was suffering in similar fashion was subjected to just the opposite treatment. His doctors stuffed him with food, and thus kept up the fever for nearly four months, leaving their patient very nearly a wreck.

To return to the hero of the dietetic rest. He went with his doctor to Val Sesia, a grand Alpine valley under the shadow of Monte Rosa. There for thirty-seven days he continued his fast. Although he rested nearly all the time, he despatched business matters whenever they needed attention with his usual

the body will pass from a pathological to a physiological state, — in other words, will get well.

Dr. Dewey found that in many cases the symptoms that existed before auto-nutrition re-appeared when the patient returned to his old bad habits of excessive eating. Dr. Dewey hailed Fletcherism as the necessary complement to his fasting cure, and both he and Dr. Van Someren have demonstrated that symptoms of a chronic and serious character can be treated successfully by auto-nutrition, and do not return when the patient adopts Fletcherism and the necessary physiological economy of nutrition thereby involved.

alertness. He lost nearly a pound in weight every day. I saw him on the thirty-fifth day of his fast; he was thin, but there was nothing to suggest that he had been fasting. During all this time there had been no appetite, but there was an occasional desire to smell the food which was pronounced increasingly good. On the evening of the thirty-sixth day there was a flooding of saliva into the mouth in such quantities as to cause frequent swallowing, — a sign of returning appetite. This phenomenon was transitory, and on the advice of the doctor was disregarded. The next day it was repeated more intensely, and food was taken. Nature not only demanded food as soon as she was able to deal with it, but she also dictated the kind of food needed. The first food desired was some of the local bread baked in sticks and therefore all crust. The next day a roasted potato was desired. With these simple foods the long fast was broken; and it is a significant fact that these should have been chosen. It is needless to say that every mouthful was faithfully Fletcherised.

During the whole of the fast, or dietetic rest, the careful doctor had the waste products analysed, and it was noted that all the pathological symptoms gradually disappeared. By the

time the appetite returned, all traces of disease had gone!

When we left him at Alagna, he expressed the intention of resting another week, and then travelling to England by easy stages. Four days later he astonished and delighted the members of the Physiological Congress at Brussels by appearing before them. Among them was Dr. Henry Bowditch, of the Harvard Medical School, who had seen a good deal of the earlier stages of the fast, and was anxious concerning the daring experiment, as he regarded it, which the doctor and his distinguished patient were engaged in. It was an impressive demonstration of what will probably prove to be the most important chapter in the history of the healing art, which has hitherto lagged so sadly behind the splendidly progressive science of surgery.

The doctor prescribed a systematic course of exercise, and accordingly this new-made man went with him on a riding tour through the South of England, with a Sandow trainer in his suite. They rode from twenty to twenty-five miles a day, with a good deal of walking, fishing, and a regular course of Sandow exercises. The enjoyment of regained health brought

about a return of the old tendency to overwork, and caused a set-back; but a few days of dietetic rest put matters right.

Two months later I saw him in London. He was still thin, but the eyes were bright, and the complexion clear, and he was despatching various affairs with that easy, unhurrying celerity which is one secret of the American's wonderful power of work. I saw him change into flannels and go through a severe course of exercises under his Sandow professor, — exercises that would have tired out many a younger man, — and all the movements were bright and rapid.

After this he went round the world, taking his physical trainer with him, and continued to carry out the exercises systematically. He returned from that long, fatiguing, and exciting trip strong, fit, and, as his friends said, looking twenty years younger. He is greatly impressed with the value of systematic and all-round exercise; and he finds, as he informed Dr. Bowditch, that with it he can get through as much work in four hours as he could do formerly in a long and exhausting day.

This remarkable case confirms in every way those which Dr. Dewey gives in "The No-Breakfast Plan" and in "The True Science

of Living." [1] The case presented by the experience of Dr. Dewey and that of his followers was already strong enough to demand thorough investigation by any less conservative profession than that of medicine, a profession which needs new light more than any other. After the above case the demand for investigation is imperative.

In view of the alarming increase of insanity, one case may be given which throws a gleam of light on that dark problem. It shows, too, that doctors are often madder than their patients, forcing food on people driven mad by the putrefying masses of food that the system is quite unable to digest.

"Miss Estella Kuenzel," says Dr. Dewey, "a lady of twenty-two years, of acutest sensibilities, lost her mental health, to a degree that death became the final object of desire. She had a friend in a bright young man named Henry Ritter, a born scientist, who possesses the very genius of the pains and persistence of science. Well versed in the science of the morning fast, he believed that a fast which would merely end with hunger would result in

[1] Chas. C. Haskell & Son, Norwich, Conn., U. S. A., and L. N. Fowler & Co., 7 Imperial Arcade, Ludgate Circus, London.

all-round improvement. A fast was instituted which he thought would not last more than a few days, but went on until the days merged into weeks; it went on because only general improvement attended it. I first heard of it in a letter written by him on the thirty-eighth day of the fast, during which there had been a walk of seven miles. On the forty-second day of the fast I had a brief letter from Miss K. in which every line was radiant with cheer.

"At the asylum five feedings per day were ordered, and at first rejected; but finally she accepted them as a means to end her unhappy life. She took them in bed, and in the last weeks seemed to be fleshing up, as there was a gain of seventeen pounds above the normal, of water, — she had become dropsical. The last professional expert in her case advised a half-gallon of milk daily in addition to the three regular meals, making a five-meal plan."

The case is well summarised in a letter of Miss Kuenzel's, the latter part of which takes up the story at the above point. She says:

"'It was then that my friend Mr. Ritter stepped in, as he saw the failures of professors and specialists, and begged my parents to let him have a chance to demonstrate what Dr.

Dewey's method would do for melancholy illusions and tired-out stomach and nerves. I then went to friends, and, in entire ignorance of my parents, began under the directions of Mr. Ritter the most sensible and cheapest of all cures. I began my fast on October 3d, and broke the same on November 16th. During the first week of my fast I was in bed; during the second (excepting the eleventh day, when I took my first walk of seven-eighths of a mile) I was in bed, in rocker, reading, etc. On the twentieth day, after a drive of three hours, I went to church, walking two and one-sixteenth miles. I then stayed indoors again on the twenty-first and twenty-second days, and then started taking daily walks (weather permitting). I went out walking twenty-three out of the forty-five days of my fast, and during that time walked one hundred and twelve miles. This was besides the carriage-drives, Exposition, and evening gatherings (walking to same included). I did not in the least feel tired or weak, but happier and brighter each day of the fast, as I could feel the effects of a new life throughout my whole body. My mind also became clearer and dizziness became a thing of the past. This was indeed joy supreme to me, and life became once more a joy instead of a burden. Sun-

shine, trees, flowers, etc., again made an impression; and my parents, sisters, and friends are rejoiced to see me in my happy normal state of health.' "

Sensations of hunger were marked on the forty-fourth day and night, and next morning Miss Kuenzel broke her long fast by eating a poached egg and two slices of buttered whole wheat toasted bread. During her fast the lady was seen by seven physicians and medical professors, President MacAlister and professors of the Drexel Institute, and many others. The weight lost during the fast was about half a pound a day.

Another remarkable case is that of Mr. Leonard Thress, of 2618 Frankford Avenue, Philadelphia. He was in the last stages of dropsy, hopelessly given up to a speedy death by the many physicians he had vainly sought and paid well for relief. His state was horrible; he could not lie down nor even lay his head back without choking, and to walk across the room was an exhausting task. At the critical moment he heard of Miss Kuenzel's wonderful cure, and as it was that or death he determined to try it. Taking nothing but a little orange and lemon juice and a little tonic, he continued his fast for *fifty days*. " According to Thress's

own recital," says the *North American*, "the effects of this course of treatment were amazing. He says that the natural craving for food was gone after the first day. Three days later he had gained so much strength that he was able to go upstairs to bed and enjoyed a good night's sleep. From that time on, although he steadily lost weight, his vitality grew greater, and on January 22d he left the house and took a half-mile walk. (He began to fast on the 11th of January.) Before three weeks of his fast had elapsed his dropsy had disappeared, and thereafter he took almost daily walks, increasing the distance with his strength. Some days he covered as many as five miles, and never less than two, even while he was growing thinner and thinner."

On the fiftieth day his appetite returned, he took the food his appetite demanded, and he said that he would take no regular meals, but would eat only when hungry. All his ailments had left him, and he said that he never felt healthier and heartier in his life.

Again: "The following case was deemed a miracle by all friends: Mrs. H. B., a woman of seventy-six, became exceedingly breathless, due, it was supposed, to defective heart action that had been chronic for many years.

The final result was general dropsy. The eyelids had become so heavy that reading could be indulged only a short time because of their weight; the throat was also charged with water so as to make swallowing difficult," etc.

In short, a very bad case. "What," asks Dr. Dewey, "had authorised medical art to promise in such a case? Absolutely nothing, as she had become too old and weak to be subjected to the ordinary means for such a general condition. As for a fast for one so old, that was the last thing that would have been thought of; her age and debility would only have seemed to invite more daily food than she had been taking. She was put on a fast, or rather the fast was continued, the cold having abolished her appetite. It went on until the fifteenth day, with increasing general strength and diminished weight. The last days before hunger came, she was able to go up a long flight of stairs without aid of the railing, and without marked loss of breath; the heart-murmur had nearly disappeared, and water by the gallon seemed to have been absorbed. On the fifteenth day there was a desire for food, that was taken with relish through the enlarged throat without difficulty; the water pockets had become

emptied, and the lids so thin and light as to reveal no fatigue in reading. Thence on, one meal a day became the rule; and since there have been five years without any recurrence of the conditions, — five years of remarkable general health and girl-time relish for her daily food."

Brain-workers were equally benefited. The Rev. C. H. Dalrymple, who had broken down, fasted for thirty-nine and one-half days, regained his health, and kept it. He says, "I have had no chills nor fevers this winter, nor cold in any form." He was working harder than ever, and adds: "I gained strength beyond all question about three weeks before my appetite returned. I could work all day long finally. It was good to get well." [1]

"Mr. Ritter conducted over twenty cases, some of the patients being able to carry on their usual avocations. I give the most important of them: Mr. A. H., forty-five days; Miss B. H., thirty-two days; Mrs. L., thirty-eight days; Mr. L. W., thirty-six days; Miss E. S., twenty-six days; Miss Westing, forty-two days. This lady on the fortieth day was

[1] The Rev. G. F. Pentecost, D.D., in his introduction to Dr. Dewey's book, The True Science of Living, advises clergymen to abstain from all food on Sundays, as they would preach better.

able to sing with unusual clearness and power, and ended her fast without losing a day from her duties as a teacher of music."

Dr. Dewey continues: "I may well wonder that Nature is powerful enough to cure the sick at all, even under the wisest aid; but with me the abiding wonder is that physicians do not see that acute sickness is a loss of all the natural conditions of digestion, with the wasting bodies the clearest evidence that food is neither digested nor assimilated. I wonder with increasing impatience that the stomach is not understood as a machine that Nature wills shall not be run to tax her resources when life is in the throes of disease."

These discoveries of Dr. Dewey's are nothing less than a new revelation to physicians, and now that they are verified by the remarkable case I have quoted of Dr. Van Someren's patient, which was observed and tested at each stage with scientific thoroughness, it will be little short of criminal if these wonderful possibilities are neglected. The demand for investigation is becoming stronger day by day, as Dr. Van Someren is applying the principle to a variety of diseases with uniform success. These cases are attracting the attention of scientific men of European reputation, to whom

they come as a beneficent revealment of Nature's marvellous recuperative powers. Unfortunately doctors are greatly hampered by the ignorance of their patients, and the ignorance and fussiness of their friends, many of whom would be scared by a doctor proposing the heroic cure. It is only a question of time to educate them; and in cases where Nature gives the hint by taking away the appetite, the first steps will be taken easily, and there will be no return of it until the cure is complete.

Unfortunately the doctors have microbes on the brain just now, and are more intent on introducing horrible serums, or "cultures" into the human system, — the serums being often obtained at the cost of horrible suffering[1] inflicted on the lower animals. This recondite searching for what is staring them in the face is a characteristic of many professions.

It was a mistake to call it the *fasting* cure, as it is *only the disease which is starved*, the body being well nourished on its stored-up food-capital. This is shown by the increasing strength and sense of well-being as the fast proceeds. This starving of disease is probably the real cure for abnormal growths, such as

[1] Rarely, if ever, in England and America.

cancer, for which the doctors are groping so blindly.[1]

Fresh air and Fletcherism will save us from disease; but for those already sick this supreme cure is at their service. It would be better to take the cure in the care or under the observation of a medical man; but for the very poor it would be the cheapest of all cures, and they would be safer in Nature's hands than in those of the overworked practitioners whose services they could obtain. Their feelings would tell them how they were progressing, and so long as they attended to the demand for food when the appetite returned they would be absolutely safe.

In a few years this will probably be looked upon as the cure of cures; but at present it is looked on as an adventure into unknown or little explored regions. Those who have tried it have rendered a great service to humanity, as they have shown the way and will give the others courage, and may well be regarded as the heroes of the *heroic cure!*

[1] Pontean in the seventeenth century records two cases of veritable cure in cancer after, in both instances, sixty days of auto-nutrition, or fast.

CHAPTER VIII

RATIONAL EXERCISE

An old soldier, who carries his years as a crown rather than a burden, once said to me: "Whenever any of my friends get out of health, my invariable advice is, *Halve your food* and *double your exercise!*" That is a fine "first approximation" to the truth.

When the body is rightly nourished, and there is no superfluous food to be worked off, very little exercise is needed; but that little should be of the right kind. It should supplement the exercise taken in the day's work. For those engaged in light indoor occupations vigorous outdoor exercise is needed; indeed, anything that takes us into the fresh air (regardless of weather) is good. For the sedentary worker walking is needed. The practice of walking to and from business is wise. Crushing into crowded and stuffy cars often takes more out of a person than the day's work; it saves time now, but the bill will be presented later in a shortened life, or a pre-

mature breakdown. Walking[1] should have an object to occupy the mind. An eye for the picturesque means a continual feast for the walker. In the country a slight knowledge of botany or of geology will make every step of the way entertaining. In town the student of human nature will find endless interest in the passing crowd. Every face is at once a history or a prophecy, recording the past, or forecasting the future; and to the imaginative the faces may suggest a whole series of Shakespearian dramas, tragedies, comedies, or fairy stories.

Cheerful talk with a friend is perhaps the best accompaniment for a walk. Golf is admirable for giving interest to a walk; but too often it ceases to be a game and becomes a solemn business. Another drawback is that you have to be accompanied by a critical caddie carrying clubs, ready to snigger at every miss-shot; or you have to carry the clubs yourself, and that is not play. A one-club golf is the desideratum; the carrying of one club would be a delight, and the increase of skill that would come of getting thoroughly used

[1] Personally I prefer a run, and I get it in the suburbs by starting in the direction of a railway station; then people think I am racing for a train and do not question my sanity.

to it, as one does to a favourite walking-stick, would be very great.

Riding brings a great number of muscles into play, and is a fine and exhilarating exercise.

In the chapter on training something was said as to the value of manual training as a form of exercise, for giving variety to the studies and for letting off superfluous physical energy. It is doubly valuable as affording exercise and training to both mind and hand; but it is trebly valuable when it can be carried on out of doors, as the fresh air gives added life. Every boy should be put through a course of military drill, which can generally be carried on in the open air. It is an invaluable all-round discipline, and would have great value for the nation as well as the individual.

While interest and emulation are needed to make exercise really valuable, and these are best secured in games, there is always the danger that they may become the real object in life for the time being, and the other studies be regarded as a bore. This is more likely to be the case in England than in the United States, where the young Americans take life more seriously, and generally make the most of their educational opportunities.

Unless it be for a special object, the building up of a great Sandow-like muscular development is by no means desirable. It is a heavy tax on the vital powers, and to keep it up requires an amount of regular practice which makes a business of it. All-round development which gives grace, moderate strength, and quickness is the highest desideratum.

A new light has recently been thrown on this subject by the remarkable case of Herr George Lettl. Nearly forty years of age, below the medium height, and only 140 pounds in weight, of light build, with no special training, and nothing remarkable in his well-developed arms and shoulders, he has beaten all records at weight lifting. The case was investigated by a physician, and reported by him in the *World's Work and Play*, December, 1904. He ascribes this achievement mainly to will power. Persons under the stimulus of great excitement perform amazing feats of strength, and maniacs in their paroxysms will exert strength equal to that of three or four men. It is also curious to note that the great Sandow lays special stress on the part which mind and will play in feats of strength and in the building up of muscle. So it is well to have a good reserve of strength in case of

need; and the best plan is to lay up a good reserve of nervous energy by practising what I have called the Triad of Essentials, — Fresh Air and Deep Breathing, Right Nutrition, and Rational Exercise. In case of emergency this energy will convert very ordinary muscles into bands of steel.

If women gave themselves gentle but all-round exercise they would be so strengthened that the pangs of child-bearing would be greatly diminished, and there would be less shrinking from the crown and glory of womanhood.

The Japanese System of Physical Training

The Japanese, with their wonderful sagacity, have perfected one of the most remarkable systems of physical training in the world — I should say *the* most remarkable. The "Jiu-jitsu" displays a wonderful knowledge of anatomy. Every weak spot in the body has been discovered (a quite surprising number of them), and the laws of leverage and momentum have been turned to account with amazing ingenuity. Trained in this art the little man can turn the big man's strength against himself, the little Japanese lady is a

match for her husband, and more than a match for a burly burglar ignorant of the science of jiu-jitsu.

The great secret of the strength, endurance, and cheery good-humour of the Japanese rests on *right nutrition* and *deep breathing*. They live on a light vegetarian diet, consisting principally of rice, a little fish, various vegetables, and occasionally hard-boiled eggs. Mr. Irving Hancock, in his excellent little work, "Japanese Physical Training,"[1] says: "Certainly there is no hardier race in the world than the Japanese. Throughout the campaign in China, in 1900, the Japanese repeatedly proved their ability to outmarch our troops by fifty per cent — and this despite the fact that our American soldiers ranked second in point of endurance."

Their great strength is obtained, or cultivated, by a simple system of exercises, involving the use of no apparatus; but every exercise is preceded and followed by deep breathing. The aim is to develop all the muscles as far as possible, and to develop them symmetrically, the left side as much as the right. In the training of our own acrobats one of the first objects is to make them ambidextrous, to the

[1] G. P. Putnam's Sons, New York and London.

equal use of both hands. This tends to develop the brain symmetrically. By using the right hand so much more than the left, one side of the brain is developed more than the other. Some physiologists believe that the equal development of the limbs, and consequently of both sides of the brain, would conserve and increase our vital forces. Frederic Myers and other psychologists think that ambidexterity and the consequent development of the brain, have something to do with genius. Although I have not seen it mentioned, it is a curious fact that music, which produces more precocious genius than any other art, demands the equal use of both hands in all instrumental performance; and while in piano playing the right hand has most to do, in violin playing the left has all the fingering, and the truth of the intervals between note and note depends upon hair's-breadth accuracy and marvellous precision. Perhaps this equal use of both hands and both sides of the brain has some share in producing musical prodigies.

Perhaps, too, the budding author of the future using two hands on the typewriter, instead of writing with one, may develop both sides of his brain more equally and give us some new and startling manifestations of

genius. It is also possible that this two-handed training of the Japs, acting as it does on the brain, may have some share in producing their extraordinary mental alertness. These possibilities should be borne in mind.

In addition to all-round muscular training, the Japanese aim at strengthening all weak or vulnerable parts of the body. For instance, a blow below the belt would double up the ordinary man; but to hit a trained Japanese there would be like hitting a football. By blows, gentle at first, he so hardens the muscles in that region that it is no longer a weak spot. The same process of induration is applied to the vulnerable parts of the throat. The whole system, both of attack and defence, is a marvel of forethoughtful ingenuity; and certainly the self-defensive parts should be adopted by us. It would enable the slight, nervous man to cope with the powerful ruffian and would tend to equality. The possession of these powers would also bring a fine form of courage.

The Higher Exercise

Years ago I said that while we had much to teach the yellow races (the golden races I prefer to call them) they have much to teach

us, although we were not then prepared to admit the fact. The amazing success of the Japanese has come as a new revelation to the West, and everything pertaining to that interesting people will have a vogue in the Western world. Their success in arms makes a forceful appeal that even the dullest cannot disregard. But they have finer lessons to teach us which need a finer intelligence to appreciate. We have learned something from them in art, but in a most superficial way; their most valuable lesson will be learnt by a later generation, probably at a time when the Japanese are losing the art themselves through the influx of Western ideas. This lesson is the value of exquisite finish, the giving of a rare preciousness to the work of art. This daintiness of craftsmanship is the direct opposite of the slipshod decadent work of the "Secessionists" which is doing so much to degrade the art of the West.

It is curious that, while we have been cherishing a lordly sense of superiority to the golden races, many of them were highly civilised when we were still in the night of barbarism. We are indebted to the East for our religion and much of our philosophy, and we have still much to learn from the same quarter.

The wonderful spirit displayed by the Japanese in their heroic struggle with the Colossus of the North is of a higher order than anything we have seen elsewhere. We know what noble deeds patriotism or pride of race can inspire; our history attests it on every page. We have seen religious fanaticism inspire the dark races to frenzied valour. We have seen the dusky warriors of the Soudan with their old-world weapons break into a square of British bayonets. We saw at Omdurman the serried masses of the faithful, decked in all the pomp of Eastern splendour, bearing down frantically upon the ring of fire and steel which mowed as with Death's own scythe the awful harvest of war.

But the Japanese, who have been described as "great in little things," are showing that they are great in great things, and are showing a spirit that blends the inspiration of patriotism and religious fanaticism. They show a moral fervour, a spirit of self-sacrifice, a sense of honour that prefers death to surrender, and a cheery bravery that makes them ideal fighters. Allowing for vanity, for pride of race, and the knowledge that the whole world is watching this racial conflict, there is still something higher.

This soul, this spirit of the nation, is the result of the cultivation through the ages of a knightly chivalry combined with the ethics of the Stoic. The warrior caste, the "Samurai," cultivated the *noblesse oblige* spirit to a high degree of perfection. The obligation of the nobility to nobility of conduct was instilled into the young, and carried out with more than Spartan fortitude. This noble discipline rests on an unformulated system of philosophy, or religio-philosophy, called "Bushido," which is admirably expounded in a little book entitled: "Bushido, The Soul of Japan. An Exposition of Japanese Thought." By Inazo Nitobe.[1] The military correspondent of the *London Times,* in an excellent article, "The Soul of a Nation,"[2] gives a short account of Bushido, which seems to be founded on Professor Nitobe's book, although the fact is not mentioned. The writer says:

"If we cannot adequately express all that Bushido is, we can say what it is not. Take the average scheme of life of the average society of the West, and Bushido, as nearly as may be, represents its exact antithesis.

[1] Simpkin, Marshall, Hamilton, Kent & Co., London. And North Pacific Trading Co. Chicago, U. S. A.

[2] Reprinted in pamphlet form, *London Times* Office.

Bushido offers us the ideal of poverty instead of wealth, humility in place of ostentation, reserve instead of *reclame*, self-sacrifice in place of selfishness, the care of the interest of the State rather than that of the individual. Bushido inspires ardent courage and refusal to turn the back upon the enemy; it looks death calmly in the face and prefers it to ignominy of any kind. It preaches submission to authority and the sacrifice of all private interests, whether of self or of family, to the common weal. It requires its disciples to submit to a strict physical and mental discipline, develops a martial spirit, and, by lauding the virtues of courage, constancy, fortitude, faithfulness, daring, and self-restraint, offers an exalted code of moral principles not only for the man and the warrior, but for men and women in times both of peace and of war."

Such ethics, not sterilised into mere Sunday lip-service, but inspiring the daily life of a whole people, comes as a vitalising breath of fresh air into the Western world.

Mr. Horace Fletcher, a "Japantheist" of long standing, wishing to know the source of the wonderful calm and self-control of the Japanese, was told by Professor Fenollosa that

the first step in the invaluable discipline was to *get rid of anger and worry*. This was a revelation of new possibilities. Impossible as it seemed, the advice was followed with beneficent results. Mr. Fletcher tells us that all the world seemed to turn good to him; the thousand and one worries, vexations, and insolences, which poison the pleasures of travel, disappeared as if by magic, and there seemed to be a general conspiracy to make things go sweetly.

It is not my purpose to preach or to deal with moral or religious questions except in so far as they are driving forces making for working efficiency. The morale of a nation cannot be reckoned in dollars, simply because it is priceless; and it will tend more and more to determine the national status and decide whether it is to go under as unfit or to take leading rank. If we can get rid of anger and worry, our health, our working powers, and our happiness will be greatly increased. I quote here the root propositions of Mr. Fletcher's earlier work, which was the first fruit of the revelation from Japan, and which has been a new inspiration to many. It is entitled: "Menticulture, or the A-B-C of True Living." [1]

[1] Frederick A. Stokes Company, New York.

"All of the evil passions are traceable to one of two roots.

"*Anger* is the root of all the aggressive passions.

"*Worry* is the root of all the cowardly passions.

"Envy, spite, revenge, impatience, annoyance, selfishness, prejudice, unrest, and the like are all phases of anger. Jealousy, fear, the belittling of self, the blues, and all the introspective forms of depression are the children of worry.

"Anger and worry are the most unprofitable conditions known to man. While they are in possession of the mind, both mental and physical growth are suspended.

"Anger and worry are thieves that steal precious time and energy from life.

"Anger is a highway robber and worry is a sneak thief.

"Anger and worry are the most potent forms of self-abuse, for the reason that in many cases anger is the result of misunderstanding, and in most cases worry's prophecies never come true; or, if they do, the fulfilment is generally caused by the worry itself.

"Anger and worry do not stimulate to any good end.

"Anger and worry not only dwarf and depress, but sometimes kill.

"Anger and worry are bad habits of the mind, and not necessary ingredients.

"Anger and worry are no more necessary than other passions civilised man has learnt to control, and it is only needful to realise that they are unnecessary in order to make it impossible to feel, much less to show them."

These are wise words, and they make not only for dollar-winning efficiency, but for power (self-control being the basis of the control of others), for happiness and self-respect; and all are valuable assets. Both anger and worry arrest digestion, lessen the power of work, and lay the foundation of internal troubles. On the other hand, indigestion causes us to worry about trifles, and predisposes us to anger. The mind and body act and react on each other, beneficially or adversely; and it is in our power to determine which it shall be. If the rules of right-living already laid down in previous chapters are followed, there will be no indigestion from over-eating or from wrong-eating. It remains only to prevent indigestion and all the other enervating troubles by banishing anger and

worry. It can be done by practice, by the Higher Exercise.

There was a grandeur of soul in the philosopher who, on being told that if he acted in a certain way people would insult him, replied: "No! My superiors will not, and my inferiors cannot, insult me!" So we may brace ourselves up to say: Great things shall not worry me, and little things cannot.

Science is showing us that human beings have grander possibilities than we had ever dared to dream. We are rooted in the Infinite, we are belted to Nature's own power-house, and all the forces of the universe will be more and more at our service. The sub-conscious mind, the "Subliminal Self," is in touch with the great positive mind of the universe. The boundless treasures of its thought and knowledge are ever knocking at the door of our consciousness, seeking admission. As the brain is attuned to higher vibrations it admits gleams from this vast ocean of light, and we have the inspirations of genius. As the mystery of existence deepens with the ever-increasing wonders revealed to us by physical science, so the mystery of mind deepens and the glorious discoveries of physical science will have their parallel in the realms of mind. With "menti-

culture," with the "even mind" exercised on worthy themes, with the more finely attuned minds and finer bodies resulting from purer habits, from drinking more deeply of the Breath of Life, from right exercise and right nutrition, these higher possibilities will become the realised actualities of to-morrow.

We have now glanced at the best means of attaining the highest individual efficiency. These means are simple, natural, and economic; not only do they cost nothing, but they lead to an all-round saving, and are worth a twenty per cent rise in wages to every worker in the world who adopts them. They increase mental and physical efficiency and give an exhilarating sense of well-being and happiness which is a fortune to its lucky possessor.

We must now consider individuals in combination, — the organised efforts to produce the highest collective efficiency, to harmonise conflicting interests, and to bring about the maximum of human betterment.

PART II

CHAPTER IX

THE HIGHER INDUSTRIAL DEVELOPMENTS

ALTHOUGH I had the advantage of seeing the industries of the world epitomised at the biggest of all expositions — the mammoth display at St. Louis — a visit to which was a liberal education in itself, yet even as thus summarised they were overpowering in their vastness and variety. Events and new developments crowd each other so rapidly that by the time we have mastered one phase the world has moved on. The most we can do is to glance at certain tendencies and new ideas and illustrate them by a few of the best examples.

In previous chapters I have shown the best means of bringing the individual up to the highest working efficiency; we have now to consider how individuals organised into industrial armies, great or small, can attain their highest collective efficiency.

There is one new development which, started by a flash of genius, has opened out a new and splendid chapter of industrial evolution. It

puts a premium on brains, sets every employee to using them, and gives him a personal interest in perfecting the organisation to which he belongs.

The Suggestion System

This is actually the organisation of brains, of intelligence, and has turned the factory in which it was first introduced into one of the model industrial institutions of the world. This is the National Cash Register Company, Dayton, Ohio, U. S. A., which has been admirably described as "A 5,000 Brain-Power Organisation," and it well deserves the name. To its president, John H. Patterson, belongs the honour of originating the system of obtaining suggestions from employees. It grew out of an early experience of his own, and he determined to embody the idea if he should ever become an employer himself, little foreseeing what a splendid chance of doing so the fates had in store for him. This incident will have historic value in time to come, and accordingly is worth relating.

In his earlier years Mr. Patterson was engaged as collector on a canal which extended from Toledo through Dayton to Cin-

cinnati, and the chief office of the lessees was at Columbus. Upon one occasion there was a break in the canal embankment, and the boats were stranded for miles on the mud, many of them loaded with ice, which was rapidly melting under the July sun. The superintendent of this division north of Dayton was unequal to the emergency; repairs were delayed and valuable time lost. Oak planks and night and day work were needed, and Mr. Patterson had special knowledge of means by which the planks might be obtained quickly and much precious time be saved. He at once wired to Columbus a suggestion of what should be done. The answer came back, "You attend to your business and we will attend to ours." Such a reception of a valuable hint raised Mr. Patterson's wrath, and he said to his friends, "If I ever have an employee, I 'll hear his suggestions about what he may, perhaps, know better than I do." [1]

This was a milestone on the road of industrial betterment. Mr. Patterson has done great

[1] I am greatly indebted to Mr. Alfred A. Thomas, the secretary and legal adviser to the Company, for valuable information. Mr. Thomas is a Solon of wisdom and garnered experience, is a school-fellow of Mr. Patterson's, and has been all his life in touch with the family. His information is therefore of the surest.

things in organising and in welfare work, but they grew up stage by stage out of the circumstances, one step leading to the next; but the Suggestion System was the realisation years afterwards of a long-cherished idea.

Those who have to attend to machines and watch their working are naturally the first to notice defects, and if the workers have brains they can generally suggest improvements. But to make suggestions under the old system was to invite such a snubbing as Mr. Patterson received, or to incur the foreman's jealousy and lead to dismissal. One factory hand was asked why he did not improve his position by bringing himself to the attention of his foreman through suggestion of better methods, and if there were not things in his department that might be improved. He replied: "Lots of them, but it is no use for me to make suggestions, as the foreman would take all the credit for them, and would think I was trying to get his job."

When Mr. Patterson became the head of a great manufacturing company he solved the difficult problem in this way. Suggestions were asked for from the employees on any matter tending to improve methods or machinery, to effect saving in time or money, or in

any way to promote efficiency. Complaints were also invited. Numerous and handsome prizes were offered for all suggestions adopted. Where the ideas proved important other rewards were given, or the idea bought outright. To protect those making complaints or suggestions a very ingenious system was devised. The official who engages the hands gives a list of those taken on to the proprietor, to whom each new man has to present himself. He is then allotted a number, the private register of which is kept under lock and key by the head of the firm. At convenient places in each department suggestion boxes are placed. These contain a double roll of paper; the suggestion is written on the upper one and is duplicated on the under one. The writer tears off the top one and keeps it, then turns a handle and the duplicate is rolled up out of sight, and can only be read when the box is opened by the right official. At regular intervals the secretary of the Factory Committee takes all the suggestions that have been written, and they are carefully examined by the Committee. These suggestions are referred to a competent authority in the departments to which the suggestions refer for comment, approval, or disapproval. They are then carefully considered

and approved or declined strictly on their merits. The secretary immediately acknowledges the receipt of every suggestion, and the record of adoption is made at regular intervals in a special monthly publication of the Company — *The N. C. R.* At the close of six months all the suggestions adopted are compared, and the most valuable ones receive the prizes offered by the Company. All suggestions adopted are brought to the special attention of the management and are taken into consideration in making promotions.

The prizes range from $75 down to $1 according to merit. In lieu of the higher prizes, trips were given to exhibitions or to places where anything was to be learned. These trips cost the Company more than the money value of the prizes, but the benefit to the prize-winner and to the Company resulting from the crop of new ideas gained is considered ample compensation. The prizes are accompanied by handsome diplomas or certificates, and these visible testimonials are highly valued.

Manifold benefits to all concerned have followed the adoption of this system; it has turned mere "hands" into men and women inventors and has remarkably quickened their

intelligence. The gain to the employers is equally great. Thousands of dollars are annually saved as a result of such suggestions, and the system has tapped an exhaustless mine of wealth in the brains of the workers. The increased efficiency and general comfort in the factory are immense. All are on the alert to detect faulty methods and to suggest improvements; and as abuses can be reported with impunity, there are fewer to report.

The half-yearly distribution of prizes by the pioneers of the system — the National Cash Register Company — is made an imposing affair. In winter the Grand Opera House is taken, and in the summer a great picnic or other outdoor festival is arranged. There are thus two brilliant functions for the workers to look forward to during the year; and they have all the charm and the excitement of grand lotteries, but lotteries of the most healthy and invigorating kind. The significance of this will be seen presently. These occasions are improved by stirring talks by the president or officers; and, as they all have the American gift of oratory, these addresses are most enjoyable and stimulating.

It is difficult to overrate the importance of a just system of promotion; it is vital to a

nation in all its departments. It is of incalculable value to army, navy, the civil service, in education and in business. Strength and efficiency depend on getting the best men to the top, and in preventing the discouraging and disastrous folly of putting the incompetent over the competent.

The Suggestion System at once brings the man of brains to the fore, and he is a marked man under the notice of the managers. The handsome certificates which accompany all prizes are the best of testimonials when a worker is seeking other employment. One of the great secrets of America's amazing success is the alertness with which the able men are promoted regardless of age or social standing. A man is doubly a man when he knows that his diligence and ability are sure of recognition. The plan of asking for suggestions, with the needed modifications, should be adopted in every walk of life.

In England the response to the invitations for suggestions is not so ready as in America; the short-sighted views held by the Trade Unions tending to prevent men making suggestions for the improvement of machinery, which the workers mistakenly regard as their enemy. In the more progressive firms in

America as many as two thousand suggestions have been made in one year, nearly half of the employees contributing. The system is being largely adopted in the States, with the most beneficial results. Among the firms who showed their alertness by an early adoption of the idea may be mentioned the Eastman Kodak Company, the Bausch and Lomb Optical Company, Rochester, N. Y., the A. B. Chase Company, organ and pianoforte makers, Norwalk, Ohio, and the J. C. Ayer Company, manufacturing chemists, Lowell, Mass.

In England the system was early adopted by Messrs. Lever Brothers of Port Sunlight. This is one of the most alert and up-to-date firms in Great Britain. Mr. W. H. Lever, the moving spirit of this world-wide organisation, keeps himself in touch with American methods. He is a philanthropist who yet recognises that philanthropy is resented by every true workman, and he is careful to avoid anything that can be called by that name, or which can be regarded as benevolence or charity. So he helps the workers to help themselves, and always with a view to increasing efficiency. He has a large grasp of the great industrial problems, and in his lectures has made valuable suggestions on the capital and labour ques-

tions. These and the firm's welfare work we shall consider later.

There is one aspect of these suggestion competitions which has never been realised or even hinted at. There can be little doubt that many forms of vice are only illegitimate or harmful ways of meeting very real needs. The drink curse, the rage for betting, gambling, and all the morbid cravings for excitement are symptoms of real disease in the social and industrial world. Too much and too little work are opposite causes of many of these evils. The monotony of work and the excessive amount of it turn a blessing into a curse. Varied work and a moderate amount of it is a delight to healthy human beings, meeting the need for exercise and recreation. Men will toil terribly at play, and pay heavily for the privilege; light and varied employment would be play-work to them. At the other extreme from monotonous and interest-killing overwork there is idleness. We find that idle hands are too often devil's tools, and vacant minds are devil's playgrounds. If all forms of work were looked on as honourable and were better apportioned it would cure a double evil. These two evils are the cause of nearly all the morbid

craving for excitement which afflicts humanity and which leads to so much demoralisation.

The Suggestion System may do something to cure the evils arising from overwork. The monotony of labour, its hopelessness, and its soul-and-body-killing excess drive men to drink for the sake of the exhilaration which light and varied labour would bring. Its hopelessness drives them to betting and gambling to get the interest which work should supply and to get the chance of at least hoping for gain. Where these more demoralising forms of excitement are not indulged in, enterprising journalism supplies others which are brought to hearth and home, and nearly all the members of a family are often set to work solving puzzles in the hope of prizes. It recently transpired that a lady spent four hours a day for nine months in an unsuccessful attempt to win a prize in a magazine competition. Much brain power that should go into a person's work is wasted on useless puzzles. Nearly all this feverish energy is worse than wasted, leaving a sickening sense of disappointment, of envy, and often a rankling sense of injustice.

For workers of all sorts the Suggestion System supplies the needed excitement and chance of gain with most stimulus. Instead of the

interest being drawn away from one's work it is focussed upon it in the most alluring way. The faculties are exercised with vigor and in a manner that increases efficiency in one's business and the opportunity of promotion with its lasting gain. There is also the chance of securing a handsome prize with a diploma, and all the honour and glory of being one of the heroes at the great half-yearly festivals. In one sense there are no blanks in these more healthy competitions, as the interest added to the work is a prize in itself, and the development of the faculties by exercise on worthy objects carries its own reward. This reward, from the standpoint of the higher purposes of life, is of greater value than the material reward. Then again, the half-yearly distributions are alluring social events and carry all the pleasurable excitement of a big lottery.

In this view the Suggestion System is not only an enormous gain from the business standpoint, but it also meets a real need for a little gentle excitement and the hope of gain, and brings improvement even to the "losers." Furthermore it carries moral safeguards against other and demoralising forms of excitement.

Apart from these higher considerations the

suggestions gained by this system have in many cases been the means of saving tens of thousands of dollars, in addition to the betterment brought about by the improved methods. So the reasons for adopting the Suggestion System are overwhelming for all employers who realise their responsibilities, who wish to be abreast of the higher industrial developments, and who would be saved from going under as the unfit.

CHAPTER X

MORALISING BUSINESS METHODS

BUSINESS, like society, has its "Smart Set" which regards smartness and cuteness as of a higher order than such "back numbers" as the Ten Commandments. It is becoming increasingly manifest that fine moral fibre, high morale in a people, is a national asset of the utmost value. In time of war it may determine the status of a nation; indeed its very freedom may depend upon it. The older firms have long recognised the commercial value of a good name, of a reputation for honesty, thoroughness, and sound workmanship. But with the smart set these qualities are apt to be regarded as belonging to old-fashioned ways, and incompatible with the modern gospel of hustle and beggar-my-neighbour methods. If it can be shown that honesty and truthfulness are not only compatible with the very smartest, up-to-date hustling, but are essentials of abounding success, we shall have an object lesson of inestimable value.

As it happens, the same man of genius who lifted business methods up to a higher plane by instituting the Suggestion System has also demonstrated that honesty is the best policy even for the most strenuous business organisations in the world. He has also shown that an open-handed generosity and a lavishness that made the orthodox business man gasp has brought sometimes ten and sometimes a hundredfold return; and this was done, not in a late millionaire stage of his career, but at a time when money was an object. It was done not from a plunging recklessness, but from true courage, keen business intuitions, and far-sightedness. When the gloom of commercial depression was at one time settling over the States and other firms were discharging their men, he took the matter in hand, and by working night and day, wearing out committee after committee by his indefatigable energy, he wrought out schemes for extending the business in spite of the depression. These were so successful that no hands were discharged, and new ones were taken on. Thus he lived up to his motto: "Do good and make money, and do more good with the money so made."

These successful efforts to moralise the keen-

est of business methods without introducing any creed claim our attention, and we must continue our study of that "marvellous organisation," the "Model Factory" of the "Gem City" — Dayton — and its enlightened president. It may seem invidious to select from among the mass of splendidly, scientifically organised business concerns in the United States and elsewhere any one for special study. But it will be much more instructive to study one or two carefully than to scatter attention over a wider field, weary ourselves with an unmanageable mass of details and tiresome repetitions, and end with little or no comprehension of the subject.

In selecting the most instructive examples for my illustrations the initiative of the National Cash Register in introducing the Suggestion System, the most brilliant idea that has illumined the industrial world, gives that remarkable organisation the first claim to attention. But that is only one of many claims on our consideration.

Meccas of the Industrial World

This "Model Factory" has become an industrial mecca to which pilgrims flock in tens

of thousands every year from all parts of the world. Expert opinion is unanimous in praise of the organisation. Mr. Mosely, who with his commission saw all that was best in the United States, said:

"I need hardly express my personal admiration of what is being done here. It is wonderful. I wish that instead of bringing two commissions I could bring many more, for I feel that it will be a great enlightenment to our people at home. I look to the future with some confidence, because lessons of this description must bear their imprint on the future. I believe that in course of time this work will spread not only in this country and to England, but to other parts of Europe, and that then we shall get a real solution of the labour problems. We cannot all be Carnegies; we cannot all be great and successful men; but it does lie in our power to help make the life of the working men both instructive and pleasant. I do not know of any institution in the world which offers so beautiful an illustration of the proper working conditions as the National Cash Register Company. Your president has asked me to criticise. I cannot find anything to criticise in this factory. I have never seen such conditions in any other factory in the

world, nor have I seen so many bright and intelligent faces as we have seen at luncheon in both the men's and women's dining-rooms. I believe this factory is as nearly perfect as social conditions will permit."

Mr. T. A. Flynn, one of Mr. Mosely's experts, in his report says that the National Cash Register " is, perhaps, the finest example existing of intelligent treatment of workpeople, coupled with intense pushfulness. In moderate phrase it may be termed a workers' Arcadia." Mr. W. Coffey, another of Mr. Mosely's experts (and it must be remembered that they had just been viewing the most important works in America), said: " It was a revelation as to what can be accomplished by well-planned organisation and good-will of all concerned."

The admiration expressed by these British experts was expressed by President Francis, the head of the wonderful Exposition at St. Louis, by the World's Fair Commissioners of twelve nations, and by a host of eminent men who have visited the factory from time to time. Sir Hugh Gilzean Reid said of the National Cash Register, " It is the poetry of business! "

Morality Mechanised

The product of this great organisation, the cash register, has a curious fascination. It is a symbol of the whole, as it is the work of many brains and hands working in fruitful co-operation. Its great claim on our consideration is the fact that it is so rapidly doing away with that pestilent open till, which has tempted so many to their ruin and has led to petty pilfering and demoralisation. It is, in a word, the symbol of the slipshod old methods. The cash register and other such mechanical recorders take away this temptation, to which erring humanity ought not to be exposed; they are the best means yet devised for preventing the customer or the employer from being cheated, and for avoiding irritating little mistakes which may involve all concerned. Thus these ingenious bits of mechanism, which seem to work with quite uncanny intelligence in their undeviating accuracy, may be regarded as Morality Mechanised! The open till is not only a constant menace to morality, but it may and often does involve innocent persons in suspicion and leads to manifold injustice. Many a man will remain honest while he is trusted, but if he finds himself under ground-

less suspicion one of the strongest barriers against dishonesty is thrown down, he is robbed of a priceless possession, and from a feeling of resentment he will often do the thing he is suspected of. There is another objection to the tempting till. When a man is underpaid he may feel that there is a sort of justice in supplementing his income by illegitimate means. This fatal first step may lead to utter demoralisation. Thus injustice on one side leads to injustice on the other.

The National Cash Register, with its customary insight, recognises this principle and always pays its employees well. It never puts a $2,000 man in a $3,000 post; and, having taken away all unnecessary temptation from a man, they trust him, and thus get the best that can be obtained from human nature.

The open till is a quite unnecessary temptation, and the employer who is robbed must share the blame. We are taught the prayer, "Lead us not into temptation," but there is no reason why it should not have taken the form of a direct commandment and have been thundered forth from the heights of Sinai: Thou shalt *not* lead into temptation!

Just over twenty years ago certain stores that should have been showing a profit showed

none. A man came along with a crude cash register, it was put in the stores, and a handsome profit at once appeared. Its immense possibilities were at once seen and seized; and this vast concern is the result. The amount of dishonesty prevented is incalculable; and a few pilfering clerks have led to this great good. It is a cherished belief of mine that there is not an evil in this world which, when viewed by the eye of genius, may not be turned into a great good by moral machinery.

The great task before the social reformer is so to rearrange social conditions and social machinery that men's interests agree with their duties and thus take away the inducements to dishonesty.

Honesty has always been regarded by the National Cash Register and similar organisations as an essential condition of success. Prizes are offered for the detection of errors or exaggerations in the statements of any of their publications. In the talks to the employees, whether by the president, the manager, or the assistant manager, the need for honesty is emphasised; and in the instructions to the selling force it is especially insisted upon. Under the heading of "How to succeed as a salesman" we find this:

"Be honest. The confidence of your employer and your customer is part of your stock in trade. Be honest with your employer, with your customers, and with yourselves." And again: "Don't exaggerate, stick to facts. A disappointed customer can do more harm than $1,000 worth of good advertising can repair." It is refreshing thus to see the old, old maxim running: *Honesty is the Hustler's best policy!*

Under the pressure of the lightning pace, shams soon burst.

CHAPTER XI

A MODEL FACTORY

A DISTANT glance at the smoke-stack of the National Cash Register Company Factory shows that "excelsior" organisation preaching a much needed lesson to many of the States. From the time I left New York, which is fairly clean in this respect, I was oppressed by the black palls hanging over nearly every great town we passed on our way to St. Louis. The factory chimneys were belching forth blacker grime than I have seen even in the "black country" in England. This was made to appear worse by the contrast with the clouds of white steam rising from nearly all the buildings. The pearly palaces of the World's Fair stood out with snowy whiteness against the heaven-sullying grime of distant St. Louis. This black plague has been worse since the great coal strike. The scarcity of hard coal caused by that labour war compelled people to use soft coal without proper appliances for

lessening the awful smother of black smoke, and they have gone on burning it since.

At Dayton the smoke from the locomotives and the ordinary factories was just as bad as in other pall-covered cities. On approaching the National Cash Register a sabbath stillness seemed to reign, and I concluded that all were away on one of the educational holiday trips which Mr. Patterson delights in affording his workpeople. On looking closer I saw that there was a little smoke issuing from the lofty chimney, and lower down there was about as much steam visible as would be made by an energetic tea-kettle. On visiting the power house later I had the good fortune to be shown round by Mr. E. A. Deeds, the assistant general manager and the electrical expert of the Company. He is one of the ablest lieutenants Mr. Patterson, with his *eye for men,* has gathered about him; men young in years, old in knowledge and wisdom. I questioned him about the smoke fiend, and he declared it was not the fault of the coal, but the result of bad stoking. He soon demonstrated the fact by showing the methods employed at the National Cash Register.

The Power House

The power house is typical of the whole, — a model of cleanliness and economic efficiency. Broad-based as it is on unusually heavy foundations, the vibration is reduced to a minimum. The compound engines get all the power out of the steam, which is used in many ways and finally condensed. It then supplies the boilers with hot distilled water; this saves fuel and supplies water that will not choke up the boilers with fur, but leaves just enough to give a thin, harmless coating that prevents rusting.

The boilers are placed low in the ground so that the coal cars can shoot their loads direct into the automatic feeders or stokers. In front of these fiery furnaces there is only a pleasant summer temperature, and two men are seen leisurely inspecting the quiet giant that supplies the whole of the vast factory and its upper brain cells with pulsating life, — with heat, light, and power. By means of the automatic stokers common soft coal is supplied so steadily as never to dull the white glow of heat. The coal is so applied that it is turned into coke at once, in the fore part of the furnace, so that the whole of the smoke from this coking process has to pass over the fiercest part of

the fire and is nearly all consumed. Behind the furnace proper there is an unusually large chamber in which all the gas and what little smoke there is are subjected to the whole concentrated heat before they reach the tube boilers. By this means the nearest approach to perfect, smokeless combustion is attained.

The cost of this improved plant, Mr. Deeds said, was about one third more to start with, but it soon paid for itself. This is not surprising, as by the old methods one third of the fuel is belched in grimy blackness to eclipse the sun and to make all the inhabitants of a city light up earlier in the evenings than they would otherwise have to do. In addition to the waste of fuel that goes up the chimney, much less heat is obtained from that which is consumed. There is also the great additional labour required. And it is labour of a disagreeable and exhausting kind. So there is no excuse but absolute poverty, bankruptcy of credit, or sheer out-of-date ignorance for those who allow this wasteful smoke nuisance to continue.

In this, as in so many other things, the National Cash Register affords a valuable object-lesson, showing that the best pays the best.

Factory or University?

The distant view of a smokeless factory chimney in that part of America so surprised me that it prompted my first questions, the answers to which I have given.

On approaching the factory one sees fair spreading lawns, avenues of young trees, artistically laid out flower-beds, and a wealth of varied shrubbery. From this pleasance rise structures which, were it not for their severe simplicity, might be called crystal palaces. So much of light and lightness do they display that the five-storied buildings are just vast window-frames, giving the maximum of glass and the minimum of dead wall. This form of structure is now being largely copied by up-to-date factories elsewhere, as it gives the workers such a splendid light and an air of cheerfulness which is exhilarating. From every one of these big windows there is a pleasant prospect. More cheerful conditions for indoor work could scarcely be imagined; well might Mr. Flynn, of the Mosely Commission, describe it as a "Worker's Arcadia."

As you walk around these buildings embowered in their flowery setting, with their air of quiet, their brightness and cheerfulness, the

feeling creeps over you that it is more like a university than a modern factory. And the impression is deepened when you see the workers trooping out after the daily task is done; for they look more like students, minus cap and gown, than toilers in a factory — so smart and clean and with so few signs of the "weary worker." It is noteworthy that while new hands may be careless and slovenly in their attire when first taken on, they soon catch the spirit of the place and brighten remarkably. It is found, too, that this brightness and care for personal appearance reacts beneficially upon their work.

The president of the National Cash Register was on one occasion giving a talk on welfare work to a number of employers, and some of them said: "That is all very well for you here with plenty of space, but what are we to do crowded up in town?" Mr. Patterson replied: "You can always do something; you can let your people leave off ten minutes before lunch time, so that they can wash and brighten up before they go out into the street; you can also use the whitewash brush to brighten and sweeten the place a bit. Improve the conditions and they will improve their work. It pays."

The most notable thing about the main

entrance to the factory is that each door-post is embellished with a handsome metal tablet starring or recording the names of the salesmen who have most distinguished themselves.

On entering we find ourselves in what is at once a museum, a reading-room, and a library. The books are arranged on an ingenious device which displays the books and magazines to the best advantage, and, being on wheels, can be moved easily into the various departments where they are needed.

The museum section illustrates the evolution of the cash register from its earliest inception, and is a treasure-house for those interested in the history of inventions.

We soon came upon one of the notice boards which are such a feature with this company. It is part of a settled policy to take its employees into its confidence so far as possible upon all occasions. On the notice boards the happenings of the day are posted, — the things to be done, the distinguished visitors who are coming, etc. This generally takes the form of an elegant poster, headed with flags beautifully printed in colours, with the announcement: "The flags are raised in honour of the visit to-day of ——." Then follow the names of the distinguished visitors, with short notes

on their claims to distinction. So when foreign visitors arrive they look up and see their national flags waving them a welcome.

From this department we enter the lecture hall, in which visitors are entertained with a " stereopticon talk " on the history and development of the Company's wonderful work. Here, too, the employees are often called together to hear instructive talks from distinguished men, to hear announcements from the management, or to be consulted upon matters of pressing import.

Upon this occasion Mr. Horace Fletcher was giving one of his valuable lectures on Right Nutrition. He was introduced by the general manager, Mr. Hugh Chalmers, a young man whose career admirably illustrates the perfection of the system of promotion in operation at the National Cash Register. Beginning as office boy at fourteen, he studied every spare moment, and learned stenography and bookkeeping; then he worked himself up from post to post until he attained his present proud position. He was in turn stenographer, bookkeeper, office manager, salesman, sales agent, instructor of the Agents' School, manager of Agencies, a member of the Board of Directors, second vice-president, and general manager,

That might well be called a true excelsior ladder; but it is one that all must climb. Mr. Robert Patterson, the vice-president, although a nephew of the president, had to work his way up in the same way from stage to stage, doing excellent work in all the departments and making notable improvements in the system. This is the method of obtaining the right man in the right place.

In introducing Mr. Fletcher, Mr. Chalmers took the opportunity of making some announcements of interest to the employees. He told them that the Company had just beaten all previous records for the year's sales. Then the true grit of the man, the statesmanlike instincts, displayed themselves. He told the men that times of abounding prosperity were the most dangerous, as they were apt to induce a slackening of effort, a resting on the oars. He urged on them the necessity for renewed efforts, for increased watchfulness and alertness to seize every means to increase the perfection of their methods and to keep up the rate of progress. This is the spirit that has built up this remarkable organisation, has won for it its brilliant success, and will ensure the maintenance of its pride of place.

Cleanliness and the Safeguards of Health

Everything is kept scrupulously clean by an army of janitors in spotless white. Dust and all metal and emery-filings are collected by huge exhaust pumps and carried down to the basement. Everything that foresight can suggest is done for the health and comfort of the workers. "The foundry is provided with every device for insuring cleanliness, light, and pure air. A system of hoods and piping frees the interior from smoke, conducting it into the sewers so that the atmosphere is always pure and wholesome."

In the cooking department, presided over by a distinguished chef from the Waldorf-Astoria, the same ingenious means are adopted to collect all the odour-carrying steam and conduct it out of the building.

The welfare features I am leaving for later consideration, and wish to confine myself to the industrial features as much as possible. But they overlap in some cases and it is difficult to draw the line. Looked at from any point of view the organisation is so perfect that it seems invidious to mention any one department. Glance at any of them and you will find it the type of all the rest. One indi-

vidual will be interested in one department and a person of different tastes will be attracted to another. If he is interested in the mysteries of accounts, of book-keeping, he will find the treasury department organised so perfectly that a balance-sheet could, if needed, be forthcoming almost at a day's notice. A high degree of perfection is attained in all the great business organisations of the world, and they make the old-fashioned business man gasp for breath. Experts ask whether these later developments at the National Cash Register are worth the extra work, since balance-sheets are not wanted every day. That is a question for experts, but to be able instantly to detect errors or leakage without waiting for the periodical balancing of the books might in some cases be an enormous gain. To the mere onlooker there is something fascinating in the triumph of system that can reduce to ordered simplicity such a vast multiplicity of details. The mechanical devices are equally interesting, — the arithmetical machines, the errorless adder, summing up nine columns at once, multiplying and dividing in a way that is quite uncanny.

New Men and New Methods

In dealing with new and complicated products like a cash register a host of new problems have to be faced. Men have to be made or trained to meet the complex requirements. The salesmen, on whom so much depend, have to go through quite a college course of instruction before they are allowed to handle cash registers. In the making of the novel mechanism a great number of strange tools are needed, and the department devoted to making them is one of the most interesting. The so-called "tools" are in many cases themselves complicated machines; some of the most effective of which have been invented by the employees, as a result of the Suggestion System.

The five Invention Departments are the best evidence of foresight, of intelligent anticipation. A large corps of inventors are constantly employed in working out new ideas. The aim is to anticipate future developments and future demands, so as to be not merely up to date but ahead of the time.

The Printing Department is big enough and complete enough for a huge printing business; that it should be merely an adjunct to the cash

register business shows the extent of the latter, and what an important part the printing press plays in modern industrial organisations.

In addition to the printing press there is an army of hand printers or typewriters tapping out messages to all parts of the world.

Every department receives marks for smartness and efficiency, and the one obtaining the greatest number for the month has a special banner of honour conspicuously displayed. The successful one is often called the "Top-Notch" Department. This creates healthy emulation, and is a splendid stimulus.

There are photographers making a pictorial record of all interesting events and of interesting persons who visit the factory. They prepare the stereopticon slides which form such a feature in the educational mission the president has been so long engaged in.

Mr. Patterson holds that "Business is Teaching"; and since he has generously given the world the benefit of his experience, and allows forty thousand pairs of eager eyes to go annually over the works to see how things are done, the National Cash Register bears out the first impression it gave me, that of an industrial university, to which all go who would graduate with honours in the commercial world.

The Industrial Microcosm

To describe all the various departments would show what a world within a world a modern industrial organisation really is. It is a State within a State, with a government something between that of an army and that of a democratic country. This is as it should be, as it combines the advantages of both. The Suggestion System sets all brains working for the common good, and the officers' practice of taking the workers as much as possible into their confidence by announcing successes and all interesting events, and by calling meetings in cases of trouble, labour difficulties, etc., is thoroughly democratic. Meanwhile the organisation of a president, a commander-in-chief, with officers, long-headed generals under him, insures that unity of command and of action in cases of crisis, and that prudent keeping of their own counsel so necessary in difficult negotiations.

The general superintendent has been replaced by a factory committee; every department has its own organisation and its own head — the captain of a company of the rank and file. The Welfare Work has its own organisation and its own president, and is kept

quite distinct from the Labour Bureau, which deals with labour questions and difficulties raised by the Trade Unions. The heads of all the departments lunch together at the Officers' Club, so they are all kept in touch with one another, and can discuss any questions which may arise.

The Selling Force: An Intelligence Department

The organisation of the Selling Force displays the genius of the president perhaps more conspicuously than any other. It is without a rival in the ingenuity of its methods of getting the best possible work out of its agents. This wonderful force is an intelligence department in itself; it keeps its fingers upon the pulse of the buyers all over the world and can report upon their requirements. As we have seen, every salesman has to undergo a special course of instruction before he is allowed to practise. The training is graded, and the beginner proceeds step by step, receiving every kind of help and encouragement by the way.

The salesmen are frequently brought together in conventions, sometimes at the factory and sometimes in their local districts. Every-

thing pertaining to their branch of the business is discussed, and suggestions made. There are also conventions of the district managers of agents, many coming great distances, mainly at the Company's expense. At these meetings the suggestions are written upon blackboards, so that the speakers can the better concentrate their attention upon them during the discussion. These blackboards remain with the suggestion and the name of the author, and prizes are given for the best ideas. Indeed the Suggestion System began in this way and was afterwards applied to the factory.

As the organisation of the selling force and the methods employed have proved so extraordinarily effective they should be studied by all business men; so I append a detailed description of it from the pen of an expert, Mr. Nat. F. Thomas, the assistant manager of the American Agencies at the National Cash Register, as given in the pamphlet entitled: "The National Cash Register Factory as seen by English Experts." [1]

[1] "When visitors are here at the factory, President Patterson not infrequently tells them the best part of the Company is not in sight. He refers to the selling force, which so long had his personal attention and care. As we are often asked about this, a brief space is now allowed to a statement about this selling organisation.

"Mr. Nat. F. Thomas says: 'All sales agents and salesmen

But no strict, business-like statement can give an idea of the hustling enthusiasm that

of this Company for the United States and Canada are under the direction of Mr. Ditzler, Manager of the American Agencies, at the factory. I am his assistant. The various sales agents and salesmen number now about 425; and they and their employees are altogether about 800.

"'We divide the United States and Canada into districts; there are thirteen of these districts, each having a District Manager upon salary paid by us. Each of these districts is divided into territories; every sales agent has his own exclusive territory. If a register is sold by the factory direct, or by any other person, for use in the territory, the agent in whose territory it is to be used gets his commission upon it, a small commission only going to the man from elsewhere who makes the sale.

"'These sales agents and salesmen all pay their own expenses and receive as a compensation a contingent part, or commission on what they sell; this being the general and express contract provision of employment with these men. The Company, in its own interest, partly for reasons of good will, but more because these things are necessary in selling a specialty or product such as we make, does many things for its salesmen which it is not obligated to do by contract, viz:—

"'1. They are brought together often in conventions at the factory and throughout the country, the expenses of which are largely borne by the Company.

"'2. Advertising of the most effective and costly kind is furnished them free, and with liberality on the part of the Company not shown by any other manufacturing concern.

"'3. Schools for all their instruction are held at the factory, and the Company not only pays all this expense, but a large part of the agents' expenses during attendance.

"'4. Liberal prizes are given monthly for the quality and quantity of business secured, in addition to the commission paid.

"'5. The Company pays much money for valuable assistance to the selling force in supervision and special agents; and employs instructors who at the Company's expense travel

is infused into the competition between the agents of the different States and countries by means of a daily publication giving the score of each salesman to date. The whole thing is pictured as a stirring naval battle, and the customers captured are called "prisoners." Here are the contents of the first page of this paper, called *The N. C. R. Quota Number,*

over the country, aiding and instructing the agents in their business. No employee of the Company, from anywhere, ever comes to Dayton, as they frequently do in large numbers, except as the guest of the Company and at its expense while here.

"'The Company gathers with labour and care the town populations of each district and the names and addresses of all the business men in every town or community, who might use a cash register. The Company then fixes, arbitrarily, the amount of business expected to be procured from each district, based on the amount of population in that territory. This we call the quota. At the first of each month the Company sets and publishes the amount of business which it expects to get in that territory during that month. Each day the Company issues an "N. C. R. Quota Number," a statement giving each man's fixed quota and the percentage of quota which the agent or salesman has procured up to that date. These are published on sheets and mailed, so that every agent knows each day what is expected of him and of every other man in the district, and what he has accomplished or failed to accomplish toward securing the amount of business allotted to him.

"'This N. C. R. Quota Number also shows the class of business he has procured and the amount of cash secured with each order. This Quota Number is the official organ of the sales department to the selling force. In it are published other items of information, or news, of comment and of commendation. These relate to whatever concerns the agent, and especially to matters of prizes and competitions among the selling force.'"

for October 26, 1904. It is tastefully printed in colours and headed with a group of American and British flags.

"AMERICA AGAINST THE WORLD

"67 PER CENT

"Of the world's prisoners has been captured by the combined American fleet since the war began. On October 22, Continental Europe had 5,903 prisoners under guard, Great Britain had 2,168 on its guardship, and the rest of the world had 1,800. The total number of captives was 9,871. On that date the United States and Canada had 20,049 prisoners. That is 67 per cent, and we agreed to capture over 62 per cent, or surrender. We are ahead, but that is just the time the enemy fights the hardest.

"Redouble your efforts.

"WE MUST KEEP IN FRONT."

In this way are the good-humour and the keen emulation kept up. National rivalries are played upon to the utmost. The British and the Germans are specially pitted against each other, and the Americans against both. Banners of honour are awarded to the most successful, and are struggled for as keenly as

for any challenge shield or football trophy. Thus are the emulation and the interest stimulated and kept up, and the business progresses by leaps and bounds.

Mr. W. C. Holman, an expert, writing in a Chicago magazine called *System* about this "5,000 Brain-power organisation," as he aptly calls it, takes the average sale of typewriters by the ordinary salesman as a standard, and he finds that he sells about ten typewriters a month, sometimes a little more, at about $100 each, while the average National Cash Register salesman will sell twenty cash registers at an average price of $150 each. One man actually sold, in one month, fifty-two registers at an average price of $165 each, and others did still better. This he attributes to the superior training of the salesmen and the wonderful perfection of the system.

Throughout the whole of this marvellous organisation there is the same concentrated energy, strenuousness, alertness, and freshness of method; yet on visiting the works one is struck by the quiet and serenity, the smooth frictionless working, and the absence of bustle and noise. It comes as something of a surprise to the Englishman visiting the States to find that the hustling American, of whom we

hear so much, is by no means a bustling or a flurrying one. He is usually as deliberate in action as in speech, yet with quiet celerity he makes the business move at a breathless pace. The brain is the real power-house, and brain hustle makes no noise!

CHAPTER XII

FRUITAGE

THE great object lesson conveyed by the novel and up-to-date methods adopted in the Model Factory we have been considering is bearing abundant fruit. The methods are being largely adopted and the buildings copied; although the plan of having the maximum of window space entails a considerable extra cost in warming the buildings in winter. But this is willingly borne for the sake of the bright and cheerful workshops which keep the workers in better humour and bring out their best work.

It is fortunate that Mr. Patterson, to whose initiative these improvements are due, should have been touched by a large missionary spirit and a generous desire that the whole business world should benefit by the result of his successful experiments. He has lectured on these matters, especially on Welfare Work, with which I deal later, and he has called employers together, explained the new systems, and shown

that it would pay to adopt them. The objection that this is only a form of advertising will not be made by anybody who knows the extraordinarily perfect means this Company has of getting directly at the limited class that use its product. At the close of one of his lectures someone with the dollar spirit said to Mr. Patterson: "How are you going to get your pay, anyway? There's nobody in this audience who is going to buy a cash register." Mr. Patterson replied: "If there is any employer of labour here who will only adopt these ideas and brighten the lives of his workers I shall be paid a hundred times over for the trouble of giving this lecture." We may really take this statement at par. But if a second motive be sought, it may be found in the fact that all his new ideas were strenuously opposed by his brother and his whole entourage; his ideas were regarded as flighty and foolish, and the generous, not to say lavish, expenditure entailed was strongly opposed. His partner was an admirable business man of the "sound" orthodox type, but John had a touch of real genius. The ordinary business man may fly around on trains or motor-cars, but the genius, like the poet, rides a winged steed, and sometimes soars to heights which sets the level-

headed business man gasping for breath. But the future is always to the genius, and when genius is allied with far-seeing business ability, the future is an immediate one and the results of prescience may be enjoyed during his life.

The innovator having had such a hard battle to fight for his ideas, it is only natural that he should wish to demonstrate their triumph and their value. As this demonstration can be regarded as quite complete only when others adopt the new methods, Mr. Patterson has taken pains to show what they are, and above all to show that the best methods pay the best. This is a lesson that needs to be dinned into John Bull's ears in and out of season.

It is true that the English do some things better than any one else; but on the whole they show a singular lack of alertness to seize the good in the new while it is new. Sometimes they wait to see what others are doing and then improve on their achievements; but too often by the time they have done so their rivals have moved on and they are still behind. Now, there is no nation in the world that has so much to lose, or which is likely to suffer such grave disaster from falling behind, through clinging to old-fashioned ideas and methods, as Great Britain.

British trade would have little to fear if all English manufacturers showed the alertness, resource, and enterprise displayed by Messrs. Lever Brothers, of Port Sunlight. Mr. W. H. Lever, who is the moving spirit of this world-wide organisation, had been twice in America the year I visited the works, and he was just starting again. He quickly adopted the National Cash Register Suggestion System, and any other features applicable to their business. The firm has an admirable monthly magazine called *Progress,* "Printed and published specially as a means of intercommunication between the Head Office and Works at Port Sunlight, the Branch Offices in the United Kingdom, Agencies, Oil Mills, and Affiliated Companies abroad." The magazine is full of good things, and is well illustrated. It is made especially interesting by the articles or lectures by Mr. Lever, who deals with the large questions between capital and labour in a large way. I shall refer to these views later. Messrs. Lever had to face the problem of housing their workpeople; this they have done in splendid fashion, and they have built something between a Model Village and a Garden City. This, and the fact that the works are thrown open to visitors, has made Port Sun-

light a place of pilgrimage, and it is visited by thousands every year.

The works of Messrs. Cadbury Brothers at Bourneville, near Birmingham — a "Factory in a Garden" — form an industrial organisation of which England may well be proud. The brothers have built a splendid model village, not only for their own workpeople, but for others who need good housing. The whole of this fine estate has been invested in trustees for the general benefit in perpetuity. This involves a principle of far-reaching importance which we shall consider later. But the chief claim of this philanthropic firm is their great welfare work to be described presently.

Great Britain led the industrial world for many years, and her example stimulated the American and the Continental peoples, who have now bettered the instruction; and a return wave of stimulation is awakening John Bull, whose phenomenal success had lulled him to sleep. In addition to those mentioned there are a great number of firms which are not only up to date, they are leading the way in their own lines.

These higher developments of business methods are of great interest and significance; but the organisation of these vast industrial con-

cerns, so complex and comprehensive, so far-reaching in their world-wide ramifications, is being reduced to a science, and can be treated fully only by experts for experts. But among the novel institutions devised by "those amazing Americans" is one that deserves a little chapter to itself.

CHAPTER XIII

THOSE AMAZING AMERICANS

THE alertness and resource of the Americans amaze even the up-to-date Cosmopolitan. One of the latest ideas is to treat industrial organisations as we have hitherto treated animal organisms, and when they are sick or ailing to provide them with a physician. There can be little doubt that the whole tendency of the larger and more complicated organisations, whether of nations, armies industrial or military, combines, or the larger business concerns, is to approximate more and more closely to something roughly analogous to the human organism. There is the head, the centre of intelligence; there are the nerve centres and sub-centres; the nerves (telephone and telegraph wires), arteries and veins (roads, rails, and trade routes along which circulate life-sustaining products). Keep this seemingly fanciful analogy in mind and it will throw a flood of light on these great organisations, show that they are liable to diseases analogous

to those of the human organism, and give luminous hints as to health and as to further extensions of organisations in their approximation to living organisms. Some years ago in "The Organisation of Mankind" I urged that the mission of mankind is gradually to shape itself into a world-embracing organisation roughly analogous to the model Nature has given us in her chief work — Man. If we but grasp this idea, and discern the resistless forces working for its realisation, it will be the expected which happens in all the larger events of the history we are making. The popular saying that "it is always the unexpected that happens" gives the measure of our lack of insight.

Be this as it may, the Business Doctoring Organisation meets a need, and has come to stay. The business physician is one of an association of experts whose work is to develop the latent earning power of any industrial, commercial, or other form of multiple activity. There are experts for every branch of a business; and when anything goes wrong they undertake to examine any business combination, diagnose its economic conditions, stop the leaks, stimulate its excellences, and fully develop its latent earning power. Every department is

examined by the right expert, and all faulty methods are detected and put right. New possibilities of development are pointed out and organised; atrophied branches are lopped off; suckers and unruly growths are pruned. By these means a business verging on bankruptcy may not only be saved, but may be made into a flourishing concern.

When we think of the amazing complexity of any of the great business organisations, it is easy to see that the efficiency of some departments may be nullified by inefficiency or faulty methods in others; and it requires the combined knowledge and wisdom of such an association of experts to put things right. It is certainly a great gain for the business man to be able to get the aid of such an association of commercial physicians, and the success which has already attended this brilliant idea will ensure its further development.

Leaving these higher industrial developments to experts and specialists, we shall turn our attention to Welfare Work, which appeals to the heads and hearts of all alike; and which is so significant, so full of hope and promise, that it is the most cheering movement that has yet illumined the industrial world.

PART III

CHAPTER XIV

WELFARE WORK

So many hopeful and beneficent activities are covered by the term "Welfare Work" that it is impossible to define it briefly. Manifold efforts are being made in many directions to moralise the relations between capital and labour. It is the efforts of the better class of employers to improve the conditions of labour; to make them brighter, and more sanitary; to house the workers better, to provide facilities for recreation and instruction, to encourage thrift, to afford some share in the employer's prosperity, and in many other ways to improve the relations between employer and employed.

Some of these efforts were prompted by philanthropic motives, some by religious feelings, and some by the necessity of finding house-room for the workers; others from the purely business idea of lessening the friction between capital and labour, and thus do something to decrease the number of strikes,

and the fear of strikes which has often such a paralysing effect on business enterprise. But whatever the motive, it is now apparent that it pays, that it is a good business investment, and that it is applicable to the small business and to the vast industrial concern having world-wide ramifications, to the old establishment and to the new. This is a momentous discovery, as it ensures the general adoption of these enlightened methods, and those who do not adopt them will be regarded as behind the times.

The Father of Welfare Work

The twentieth century is re-discovering what was brought to light just one hundred years ago. Robert Owen was the great pioneer, and if he had not eclipsed his well-earned fame by his later socialistic experiments, which were uniformly unsuccessful, and had not incurred odium through his secularism, he would have been recognised as the "master-type of the far-seeing and philanthropic captains of industry." He appeared in the darkest days of the industrial system, when the application of machinery caused human beings to be regarded as machine-slaves, requiring less care

and attention than the metal monsters that demanded their abject service; when children not yet in their teens were hired out in gangs to ruthless task-masters who ground the poor little things into physical wrecks; when drunkenness, lying, and theft were so common as to drive well-meaning masters to despair. Into these nightmare conditions was Robert Owen born. He had little education except what he obtained through his passion for reading. An accident in childhood compelled him to be an ascetic in diet all his life, and to this circumstance may be attributed the brilliancy and clearness of his commanding intellect. Beginning to earn his own living at nine, working his way upwards in a self-helpful way that would have delighted the soul of Dr. Smiles, he became the master of spinning mills at twenty. He so improved the machinery and its product that his thread readily fetched fifty per cent above the ordinary market price. At the age of twenty-eight Owen was the manager of the New Lanark Twist Company, and he there began, under the most discouraging conditions imaginable, his work of human betterment. The population was in a horrible state, — drunken, immoral, and thieving; living in hovels amid dungheaps. Owen was

regarded as a foreigner, with dislike and distrust. He set to work with tact, patience, and indomitable perseverance, though the dislike and suspicion of the men hampered every move. At last there came a sudden cotton famine; Owen had to stop the mills, but instead of discharging his hands he kept them at work cleaning the machinery, and gave them full wages until the embargo was taken off the cotton and they were able to start work again. This master-stroke broke down the workers' distrust and suspicion and won their confidence. Then his philanthropic work prospered as never before. He wrote, lectured, instituted infant schools with a method which to some extent anticipated Froebel and his kindergartens. By most ingenious means he cured the men of their thieving propensities, lessened intemperance, and made a model factory in a model village. It became famous, and visitors flocked from all parts of the world, as they do to-day to the National Cash Register, Port Sunlight, and other Meccas of the industrial world. Owen was consulted by statesmen, and was largely instrumental in getting the earlier Factory Acts passed. Then, at the height of his fame and usefulness, he retired from business to carry out his futile

socialistic schemes which were hundreds of years before their time. This and his secularist teachings, which brought against him the dead weight of religious prejudice, completely eclipsed the grand work he had done for human betterment.

Owen retired from business in 1829, and shortly after that patronal institutions began to arise in the mining districts of France, and ten or fifteen years later Welfare institutions began to grow in Germany. These institutions have taken a great variety of forms, have spread and grown in extent and variety, until at the present time there are several plethoric journals devoted almost entirely to Welfare Work. These institutions began with such firms as Krupp, of the colossal steel works, from the necessity of housing the workers, then from the desirability of encouraging thrift and providing against sickness, accidents, old age, and the various vicissitudes incidental to the wage-worker. One of the most helpful institutions evolved is the Workmen's Councils, in which the employers have a minority representation.

In France the institutions have developed on somewhat similar lines, but with even more paternalism. This has caused trouble, and some of the worst strikes have arisen through

these institutions. They have already been modified and improved by the experience thus gained; but the ever-growing tendencies towards socialism are changing the feelings of the workers both in Germany and in France, and will necessitate many more changes in the future. The temperament and the conditions of the workers both in France and Germany differ so much from those of British and American workmen that I shall confine myself mainly to Welfare institutions in England and in the United States.

About twenty-five years after Robert Owen retired from business Samuel Morley at Nottingham and London introduced some beginnings of Welfare Work. Ten years later Sir Titus Salt, a great philanthropist and manufacturer who first made alpaca fabrics in England, founded and built the famous model industrial village, Saltaire, near Bradford in Yorkshire. Here, at a cost of about a million dollars (£200,000), he introduced all the finest features of Welfare Work which were afterwards developed in Germany and France. But they were founded on a philanthropic rather than on a business basis, and after the death of the noble founder in 1877 his splendid institutions decayed.

After Sir Titus Salt began to realise his schemes for human betterment the good work was taken up successively by Smieton and Sons, of Dundee; Hazell, Watson, and Viney, printers and publishers; Cassell and Company, the great publishers; Tangyes, engineers of Birmingham; the proprietors of *The Graphic*, etc.; the Clarendon Press, Oxford; Messrs. Fry Brothers of Bristol, and Messrs. Cadbury of Bournemouth, the latter firms being the well-known cocoa and chocolate manufacturers; and Messrs. Lever Brothers of Port Sunlight. Many other firms have taken up one or more features of Welfare Work; some from religious motives, others from philanthropic, and others from purely business motives; but there is in England no general organised effort to urge the necessity or the desirability of it, and no conferences for the comparing of notes by those engaged in this hopeful movement.

Great Britain greatly needs an institution like The National Civic Federation of New York, organised for industrial conciliation, and holding conferences to promote it. One department of this valuable institution is devoted entirely to Welfare Work, and to its courteous and extremely able secretary, Miss Gertrude

Beeks, I am greatly indebted for information about the movement in the United States.

Welfare Work in America

Employers seem to have been rather late in the field with Welfare institutions in the United States; but having taken it up they are developing it with characteristic energy and thoroughness, and will soon lead the world in this as in so many other things.

In March of last year (1904) a conference was held on this subject at the Waldorf-Astoria, New York, and Mr. H. H. Vreeland, the chairman, in opening the proceedings, said:

"Believing that its efforts to better the relations between employers and employees would be materially aided by the promotion of what is called 'Welfare Work,' the National Civic Federation recently authorised the organisation of a department for that purpose.

"The first meeting of the Committee appointed to organise the Welfare Department was held in January, and largely attended by the representative employers from various sections of the country who compose the Committee. It developed that it was the first time

that employers who were giving especial consideration to the welfare of their employees had been brought together, and that each one had an idea that this welfare work was an individual effort on his part in his particular locality, and that he was rather like the mole groping in a dark passage, and when he came to the light he found that he was not 'it,' but that there was a great deal of this work being done throughout the United States both by corporations and individuals."

Nearly all the earlier efforts were of a philanthropic nature and were begun before labour troubles forced men to face these problems in a business-like way. Some of these pioneer efforts had splendid results, bettering the conditions of the workers, beautifying their surroundings, and adding noble institutions to the towns in which the works were situated. Among the more successful of the earlier philanthropic welfare institutions may be mentioned those in connection with the Waltham Watch Factory at Waltham, Mass.; Oliver Ames and Sons, North Easton, Mass.; Cheney Brothers, the great silk manufacturers, of South Manchester, Conn.; the Willimantic Thread Company, Conn.; Warner Brothers, Bridgeport; the Solvey Process Company,

Syracuse, N. Y.; and others.[1] The model town for their workers built by the Pullman's Palace Car Company is one of the largest and best known of all these experiments; but there were inherent defects in the management which led to trouble. This we will consider later.

After the speech of the Chairman of the Conference on Welfare Work, part of which I have quoted, the gathering resolved itself into an "experience meeting," showing the work done and the experience gained by a great number of firms, representing nearly all forms of industry. These gave rise to some instructive discussions by the way. But before considering these I think it will be best to take one typical case and follow it up from its simple beginnings to its present high developments. In selecting a case for illustration I shall take one in which the philanthropic promptings have been subordinated to business principles, as that is more consistent with the dignity of labour than purely philanthropic efforts that may smack of charity. The self-respecting worker resents charity even while he may honour the kindly spirit that prompts

[1] See Professor N. P. Gilman's A Dividend to Labour. Houghton, Mifflin & Co., Boston and New York; and Macmillan & Co., London.

it. When splendid gifts are made to communities of workers they are apt to be looked at askance, and the men think they are expected to be profoundly grateful for what they in their heart of hearts regard as having come out of their own pockets; this causes suspicion and distrust. Another reason for putting these things on a purely business basis is that benefactions to workers are apt to be regarded by the Trade Unions as attempts to lessen their power over the men. All such organisations thrive on grievances; to remove them is the ostensible reason of their existence. So when employers begin voluntarily to remove these causes of complaint it takes the wind out of the sails of the Unions, so to speak; but the Union men are so attached to their organisation and the power it gives that they often oppose the removal of the very grievance they were organised to remove! For this reason Socialists and extreme Labour politicians are often more opposed to Liberals who would remove grievances gradually than they are to Conservatives who maintain the grievances that strengthen Socialistic and Labour Organisations. For these and various other reasons that cause men to act paradoxically it is better to keep welfare work on a frankly business

basis or on the grounds of justice or expediency, and not on benevolence. So I shall take for my illustration the work of one of the vice-presidents of the Welfare Department of the National Civic Federation which complies with these conditions. It is the best of its kind, and it can be picturesquely stated.

I therefore take the case of what is playfully called "The Five P's" — President Patterson's Plan of Paying Philanthropy — and it will enable me to complete my sketch of the "Model Factory of the World," the National Cash Register. Although many others are doing splendid Welfare Work, no one has done so much as Mr. Patterson to force it on the attention of employers, to show the wisdom of it, and to point out that it is to their interest to do as much as possible for the benefit of their employees, because it is their duty, and above all because *it pays*.

CHAPTER XV

"WELFARE WORK IS PRACTICAL RELIGION"

In one of his talks Mr. John H. Patterson said:

"I think it was Judge Parker who once said that 'everything that happens to you and looks bad can be turned to advantageous results' if we trace them out. Shortly after my wife died I began to see many things in the factory among the women employed that made me anxious to improve their condition. What I did in this direction was because I felt it was right, and the business of the factory improved in consequence. I turned out early one morning and mingled with the factory hands on their way to work. It was dark and they did n't recognise me. It was dark and cold, a rainy grey morning. I walked up with them and when I got to the factory it was all dark. The place was cold and miserable. There was no heat in the rooms, and the girls groped their way upstairs, tired, discouraged, naturally miserable in spirit, totally unfit for work. How could they feel otherwise in such a place

as that? So I went to the man in charge of the lighting plant and I ordered him to turn on the lights fifteen minutes earlier in the morning. He looked at me with pity. He was sorry for me. It would cost so much more, it would be such a waste of light, the men would have to be paid extra to come earlier. Never mind, pay them, but let 's have this place heated and lighted when the employees come to work.

"Then I ordered the elevator to be started earlier, so that the women would not have to climb dark stairs to their work. The next morning when they came everything had been done as I ordered, and they looked surprised and pleased of course. The result was that they did better work, and, as we were turning out an expert machine, it meant so many more sales for us. Machines had been coming back to us, and I felt that this ought not to be if the work was properly done. A favourite way most workmen have of opposing new and better ways suggested to them is to say, 'Well, this is the same.' That is just the best reason in the world why we should do better than they do."

That is the excelsior spirit which now thrills through every nerve of the vast National Cash

Register organisation. As this work is really the humanising of industrial conditions it is more in keeping with the theme, I think, to adhere to the personal element and narratives than to cold abstract statements. In Mr. Patterson's case one step led to another.

On one occasion the factory was partly paralysed by several of the most highly trained and skilful girls leaving just for the sake of change. This caused a loss of $250 a day until others could be trained to do the work. This led Mr. Patterson to inquire into the causes of such unprofitable happenings in the hope of finding a remedy. The search was conducted with his usual energy and thoroughness, and led to many discoveries. He found that among the girls a petty jealousy of one another's personal adornments was the source of much discontent. Some were better and more prettily dressed than others, making the unadorned ones feel and look shabby. This was overcome by supplying them with big white aprons which covered the dresses and reduced, or rather elevated, all to democratic uniformity. These aprons are kept scrupulously clean at the Company's expense, and they give the girls a very bright and business-like appearance.

On another occasion the president saw one of the girls trying to heat up a little cold coffee over a radiator. "We all know," said he when narrating the event, "what warmed-up coffee tastes like. I knew that the officers, with whom I talked everything over, would never approve of giving them coffee. So as I was then about to pay $500 for a new horse I gave up the idea and spent the money in buying coffee for the girls. 'I suppose you want to give them cream and sugar with it,' said one of the officers a bit scornfully, and I replied, 'Yes,' and so it grew."

They were soon after provided with a spacious dining-room, in which they are supplied with excellent and well-cooked food at cost. The lunch-room is bright and cheerful; the snowy table linen, the flowers, and the fine dinner service helping the general effect. A piano is provided for the benefit of the girls during their noon recess of one hour and twenty minutes. The dining-room is now managed by a committee appointed by the girls themselves, and all complaints are made to this committee, which may be changed as often as they like. This is an admirable plan, since if the conduct of affairs is not right they have only themselves to blame. All the trouble is

thus taken off the shoulders of the Company, and the girls obtain experience in managing their own affairs. The whole plan is conducive to their self-respect and their dignity, — both valuable assets.

On another occasion, as Mr. Patterson was going his rounds, one of the girls fainted, and there was nothing but the floor or two chairs for the girl to lie on. This at once led to the institution of a rest room, comfortably furnished, to which any one feeling faint or tired can retire at once, without any formality, and rest. This was a daring experiment, but the trust in the girls has never been abused, and there is no skulking. They bought a piano for it themselves, and after lunch they play and read and enjoy themselves fully.

To avoid the intense discomfort of overcrowded cars, and the general crush of over 3,000 men and women hurrying to the factory at the same hour, it was determined to allow the girls to come to work one hour after the men and to leave ten minutes earlier. In addition to this a special service of tram-cars was arranged for the girls so that they could come and go in comfort. As every step taken brought encouraging results, the women were given a Saturday half-holiday and a full day

once a month. These concessions reduced the working day to eight hours; they received the same wages and did more and better work. So, as Mr. Patterson says, "It pays to do right every time."

There are now at the factory specially fitted-up wards with trained nurses and all medical appliances for cases of illness or accident. A physician from the Battle Creek Sanitarium is always on the spot, and he has many of Dr. Kellogg's ingenious appliances to carry out his advanced and rational methods.

When the great Exposition at St. Louis opened Mr. Patterson at once saw its immense educational possibilities, and, true to his principle, that "Business is Teaching" and teaching is business, he was anxious that all his employees should go. To this end the works were shut down for a fortnight, and all were urged to go. In some characteristic "talks" they were told what to see, how to see it, and how to keep themselves fit. The exhibition was described to them as an epitome of the world's best and most beautiful work. They were especially urged to study what had been accomplished in education, that they might on their return do all they could to improve the educational facilities of their own town. They

were urged to seize on all ideas that would help to improve their work and their position and enable them to help forward the general betterment of the world's workers.

Over five hundred of the "Woman's Century Club" girls went to the World's Fair, the Company paying the greater part of the expenses for the week. The entire affair was a masterpiece of good management and organisation. A committee was sent to St. Louis in advance to make all the necessary arrangements for housing, feeding, and sight-seeing. The committee divided and explored every part of the Exhibition and visited the multitudinous side-shows, so that nothing was overlooked. Their several reports were printed and distributed among the girls before they started for St. Louis, so that they knew what was to be seen and the best way to get to it. As a result of this wise foresight their five days at the Fair were as profitable as a fortnight of hap-hazard sight-seeing. Everything was done that human foresight could suggest for their pleasure and safety.[1]

[1] I cannot refrain from quoting a few words from one of the letters describing this memorable trip which were afterwards printed in the N. C. R. *Woman's Welfare*. They are all admirably written, and show the high intelligence of the writers. I quote the letter of Miss Frances Gregg: "I shall

The men were also assisted and encouraged to go, and they organised a great excursion. They were all received by President Francis and the Commissioners. There were other receptions and various functions. Educational trips of all kinds have always been in high favour with Mr. Patterson. He declared that to send his employees to the World's Fair was an education and an inspiration that could only have the most beneficial effect on his workers, who would get new ideas and do better work.

The men's requirements have received the same thoughtful attention as those of the girls. They have their dining-room managed by their own committee. An evening meal is provided at the Company's expense for those working over-time.

There is a Cooking School for the benefit of the women employees, and all the appoint-

never forget my first impression of it all. So wonderful! So stupendous! It covers 1,240 acres and cost $50,000,000, there being 500 distinct buildings. Fifteen of them are giants, forming a fan-shaped picture. As I walked up the plaza adjoining the main entrance and saw the immense white palaces looming up before me, the artistic bridges spanning the lagoon, and the beautiful cascades in the distance surrounded by the 'Terrace of States,' it all formed a picture which I shall never forget. I was thrilled, and I simply stood still, clenched my fists, and drank it all in. How I wished everybody might see it!" There is a world of meaning in that rapt gaze, and in the clenched hands; it shows the receptive soul rising to a great occasion.

ments and facilities of a large up-to-date kitchen are placed at the service of the students. The ablest exponents of scientific cooking are employed to teach the best methods of preparing economic and nourishing meals at home. In the various kitchens of the Company there are two classes of young women engaged weekly in learning the fine art of cooking and serving tasteful dishes.

Cleanliness is a basic principle of the National Cash Register. Everything in and around the factory is scrupulously clean. All the employees are provided with warm and other baths, and are allowed twenty minutes of the Company's time — twice a week in summer and once a week in winter — to enjoy them. This idea is as ingenious as it is generous, removing, as it does, all possible excuses for declining the order of the bath.

The girls are provided with comfortable chairs and footrests while at their work. Miss Dwight of New York, a most able exponent of physical culture, was called to instruct them in the best way to sit, stand, walk, work, or rest so as to avoid back-aches and to get the maximum of results with the least expenditure of energy.

Each morning at ten and each afternoon at

three o'clock a recess is given to all the young women. This rest-time is generally spent in calisthenic exercises and other forms of healthful recreation.

This betterment work has made the factory very popular with those seeking employment, and the Company has a great number of the better class of girls anxious to be taken on. Thus the female employees at the National Cash Register have been transformed from the ordinary coarse factory girls to bright, attractive young ladies, who constantly remind one of Ian Maclaren's description of the American girls who once formed his audience: "Every one as sharp as a needle, and as pretty as a flower." This happy transformation has been brought about by welfare work and by the beneficent influence of a wise forewoman. The later detail is so interesting and instructive that I give in full a note by Miss Ella M. Haas, which is at once a history of the change, and a statement of the right rules to be followed in similar cases.

What a Forewoman can do

"When I first came to the factory, fifteen years ago, there was only one department that

employed women — the Indicator — and I was the only woman in the Printing Department. The young women then in the employ of the Company were very different from those we have to-day. Everything that was coarse seemed to predominate among them. They were of such a type that the superintendent said to me one day: 'You do not want to spend your noon hours with those girls; they will be of no benefit to you. Bring a good book to work with you and stay in this department at noon.' Although I felt that my presence in the department at noon was somewhat of an encumbrance to the men, I did as I was told, because I really did not care to associate with that class of girls.

"Many of the girls were loud and coarse in their manners, slovenly in dress, and careless in all their actions. Naturally, they were indifferent about their work and lax in their behaviour about the workroom. The department was disorderly, the women were unruly, and the management finally decided to try what a forewoman could do to improve matters. The Company was really ashamed of the condition of affairs, and also felt that the work of the department was being hindered. So one day the superintendent asked me if I

could recommend some one to take charge of the women's department. I recommended a woman who had never had any experience with that kind of work, but who had a good strong character and some business ability, and was very firm.

"She undertook the work, determined to better conditions, and the firm gave her the right of way. The women understood perfectly why a forewoman was put over them, and at first resented it. A few of them had to be replaced in order to preserve discipline. From the first the forewoman insisted upon clean language, neatness in dress, and proper behaviour towards the men whose work brought them into the department. She took pains, however, not to seem domineering or tyrannical. She called the young women together frequently to explain what she wanted of them. She appealed to their womanly nature and reasoned with them. Often she took the girls aside privately and talked with them.

"It took time, of course, to effect much of a change. Gradually, however, the department became more orderly, the work went more smoothly, and, best of all, the standard of behaviour was raised. They were quieter at

their work than formerly and more attentive to it. They were neater in appearance, and the whole department was a cleaner, more attractive place. There were less and less loud talking and coarse laughter. Soon it came to be understood that a young woman must meet certain requirements in order to be employed at all.

"The woman who brought this change has this to say about her work:

"'I do not think that a woman can afford to take such a position simply to be a boss. To be a forewoman means much more. Girls must be reasoned with, not driven. Their dispositions must be studied. If a girl feels badly, let the forewoman sit down and talk with her in a tactful way. A little word of encouragement or a little attention means much to a girl with a heavy heart. In this way the forewoman gains the confidence and good-will of the young women and can approach them on subjects which a foreman would not dare to take up with them.

"'Such work is not all philanthropy by any means. It has a practical business side. If a forewoman wishes to raise the standard of work in her department and increase the output her hands are crippled unless she has the

co-operation of her employees. By extending sympathy to them and showing that she is their friend, instead of a slave-driver or boss, she wins a loyalty and support which can be obtained in no other way. To insist upon neatness of appearance in the workroom is not altogether a sentimental idea either. A slovenly girl always does slovenly work. The more we insist upon carefulness in dress, the surer we can be that the quality of the work is going to improve.'

"Many people think that when a girl enters a factory she leaves part of her womanliness behind. It rests with the forewoman to show that this need not be the case. A girl can be neat in appearance and ladylike in behaviour in a factory as well as in the home. One thing that has helped us a great deal has been the separation of the men and women in different departments. This cannot be done in all lines of work, but where it cannot be done there should be provision made for the young women to spend their noon hours by themselves. One of the first things done here, long before any one thought of a dining-room, was to forbid the young women going into the men's departments at noon. I am positive this helped to keep down a number of coarse features that

would have developed in the lives of our young women. To-day our young women are respected because they respect themselves. We have proved in our factory that woman can go into the business world and retain all her womanliness. Girls of good breeding and education are glad to work here because it is so."

As outside expert evidence I will quote from the report of Mr. Robert Holmshaw of the Sheffield Cutlery Council, a member of the Mosely Commission, who says: "At the National Cash Register Works at Dayton there are over 300 girls employed, many of them graduates of the high schools, and, judging from their many interests, as set forth in a magazine edited by themselves, all are girls of superior attainments. The conditions under which these girls work are ideal, and their wages, we are told, run up to $10 per week."

There are surely "practical pointers" here for our business men.

From the early beginning welfare work has spread in various ways. Dancing classes and receptions are held twice each week in a spacious hall in one of the Company's buildings. There are classes especially for children on Saturday afternoons, and they are taught dancing, deportment and etiquette, and other graces.

These children, it must be remembered, are not employed in the factory, but belong to employees and their neighbours; and this is part of the systematic effort to extend these benefits beyond the bounds of the factory and its employees.

The adult classes have greatly developed and their general assemblies are often elaborate and beautiful functions. "The object of the classes," Miss Buck tells us, "is not alone to teach dancing for the pleasure derived from it, but to provide an easy way for the men and women of the factory to meet under pleasant circumstances. Though they work under the same roof and for the same cause, the men and women have as a whole little chance of meeting each other socially. . . . The women are formally introduced and are themselves responsible for the dignity and general appearance of the class." Dancing is regarded as one of the best exercises for teaching ease and grace of manner.

Nearly a thousand of the employees ride to and fro from their work on bicycles, and it is an extremely pretty sight at the close of the day's work to see them darting off in all directions, more like exuberant school boys and girls than workers after a day's toil. There

is an extensive wheel house in which the steel steeds are stabled during working hours, and there is a compressed air station for the rapid inflation of the tires.

Mental as well as physical welfare claims the attention of the Company. "At the N. C. R. House — under the supervision of a resident directress employed by the Company — classes are held in art needlework, history, English, Spanish, stenography, wood carving, and a number of manual-training studies."

Some years ago a building near the factory was about to be turned into a drinking saloon. Mr. Patterson secured it and converted it into an undenominational Sunday-school, open to all children of the neighbourhood. "Our children," he said, "can never rise much above the general level of the other children with whom they play. To raise our people we must raise all those among whom they dwell." In this school the most ingenious methods are used to interest, brighten, and instruct the little ones. The stereopticon plays a conspicuous part; the Company possesses a magnificent collection of magic-lantern slides and has a special department for preparing them.

Boys' Gardens

One of the happiest inspirations concerned itself with the boys of the neighbourhood. Slidertown close by was the worst part of Dayton, and suffered badly from "Hooligans," "Larrikins," or boys of an age when they are said to be in the Red Indian stage of development, when the greatest misery to the greatest number is the main plank in their philosophy. Respectable folk would not live there if they could get away. Then came Mr. Patterson's happy thought. Three of the worst ringleaders were induced to leave for distant climes; Mr. Patterson then secured a number of acres of land in Slidertown and had it divided up into about a hundred garden plots, 10 feet wide by 170 feet in length. The boys were induced to cultivate them. A competent instructor was engaged who acts as superintendent and cultivates a model plot to serve as an object lesson; but the boys were allowed to follow out their own ideas. The Company supplies them, free of charge, with tools, seeds, slips, bulbs, water, and everything necessary for successful working.

To stimulate their interest cash prizes amounting altogether to $50 in gold are given,

and at the end of the two years' course the boys are awarded diplomas, which are valuable recommendations in case they seek employment later at the factory.

By working one hour in the morning and two in the afternoon the boys manage to raise quite a handsome crop of fruit and vegetables for home consumption, and make a little pocket money by selling the surplus. The annual awarding of the prizes is quite a grand function for the little fellows. They are invited to a fine dinner at the Officers' Club by the president, who distributes beautifully engraved bronze medals to the prize-winners and diplomas to those who have completed the course.

The Company states that the whole cost is so small, compared with the very great benefits to all concerned, "that a similar educational feature could be successfully conducted with most beneficial results by any small community." The effect on the morale of the boys, and indeed the whole neighbourhood, is such that property has increased 300 per cent in value.

Bettering and Beautifying

In the early days the factory was surrounded by the usual miscellaneous collections of rubbish, making a forlorn and unsightly waste. The innovating spirit moved over this chaos and turned it into a smiling creation. A famous landscape gardener was sent for; the rubbish disappeared, and the whole of the surroundings were artistically transformed, until the factory was set in a constellation of "stars of the earth" — as flowers may be called.

But a thing of beauty should radiate beauty and transform everything around it. The untidy cottages and rubbish-filled yards of the immediate neighbourhood looked more unsightly than ever. So the Company offered prizes for the best kept gardens and the prettiest floral arrangements for hiding everything that was ugly. Where people could not afford to remove tumbledown fences and to lay out and plant gardens the Company did it for them in artistic style, free of cost, and then handed them over to the owners to keep in order. This they do most loyally, and the whole place is embowered in greenery. As prizes are also given for window-gardening,

one sees a picture at every turn, and in summer the air is filled with the perfume of flowers. This is surely making the desert rejoice and blossom as the rose.

Self-Help Clubs

The rapid growth of all these new movements necessitated the organisation of a Welfare Department with its own officials. Mr. C. T. Fugitt, the present head of the department, and his assistants devote the whole of their time to this work alone. At the recent Conference on Welfare Work in New York all the speakers agreed that wherever there were many employees it was necessary to have a social secretary or a welfare secretary to devote his or her whole time to it. Several clubs have been formed for boys and girls. There are weekly meetings for gymnastic exercises. The boys have a brigade, and the club members hold weekly meetings which are conducted upon strict parliamentary lines. A splendid fire brigade has been organised, and there are periodical drills so that the whole of the employees know how to act in case of an outbreak.

A Men's Welfare League has been formed, the objects of which are thus stated:

"First: To do Welfare Work for factory employees, to the end that the working conditions of factory people may be improved.

"Second: To secure the greatest possible efficiency in our municipal, county, and State offices; to assist in improving and extending our system of public education, so that we shall have the best possible public-school system; to aid in improving our present system of taxation; and generally to do all things possible to build up the mental, moral, and physical conditions of the people of our city, irrespective of political, religious, or other affiliations. It shall be our duty to secure the best results possible at the least expense."

The entrance of a large body of earnest men, inspired with this soaring excelsior spirit into the field of parochial politics, sweeping aside all narrow religious and party differences, going straight for human betterment, efficiency with economy, is a factor of immense significance; and if this splendid lead is generally followed it will do something to purify party politics and prevent the awful abuse of time, money, and morals by senseless friction and mercenary self-seeking. This new league has already frustrated a scheme that was a real menace to civic purity.

For the purpose of bettering educational methods a committee was appointed to visit the most famous schools in Indianapolis, where they acquired volumes of valuable knowledge and new inspirations. On their return they quickly set to work and proposed to the managers of an adjacent school — the Wyoming Street School — to introduce some of the new features. On receiving consent they organised a grand fête which, with the help of tradesmen to whom they made appeal, brought in funds sufficient to equip completely a Cooking School and a Gymnasium.

A committee was sent around the States to study all that was doing in welfare work in order to improve their own methods. Thus the good work goes on, and these energetic folk with their fine inspiration will not rest until they have made the "Gem City" worthy of its name and brought it up to the level of the Model Factory.

The men have their playing fields, their base and football teams, their gun club, and a number of other desirable organisations.

The women are equally energetic and progressive. They have formed the Woman's Century Club. "It is a literary club and is federated not only with the State, but with

the national organisation. It has 500 members and carries out each year a programme worthy of any club. It publishes, 'in the interest of the working women of the world,' a magazine called *Woman's Welfare*. This magazine is published quarterly, and because of its wide circulation has done much to induce other employers to adopt these methods of making more pleasant the working hours of their people."

This is a modest understatement of the case, as the energy and intelligence displayed are remarkable. It is evident, too, that the president has infused his own missionary spirit into the whole of the welfare workers, as they are striving to benefit the bread-winners all over the world.

A Club House for Wage-earning Women

This might be called a Home-Club, as the leading idea is to get rid of all "Institutionalism" and make it as home-like as possible. The great housing problem has not yet come up for solution at Dayton, as most of the men own their own houses. But the case of working women who have no homes is different, as they want something more home-like than

the public boarding-houses, and they find it difficult to get suitable lodgings with private families.

The Woman's Century Club grappled with this difficulty with characteristic energy. Needing a club house for many purposes, they took a house and engaged a matron. Then the girls threw themselves with enthusiasm into the work of furnishing it; they made everything that came within their range, and the departments vied with one another in their contributions. The house was soon fully furnished, and opened with ten girls as lodgers. It became at once a social centre, and members were allowed the use of rooms to entertain their friends.

They were fortunate in the choice of a matron, if we may judge by her words. She said: "A home in truth is what we mean to have for women, where they may have sunshine and liberty; where they may be surrounded with refining influences; where they may be associated with people of culture. We want to make it a home of comfort and interest, and above all a pleasurable home that they may grow into doing things for humanity from very gladness of heart."

Recently the Company handed over to the

club the old homestead of the Pattersons. This is a fine old mansion, of bright and cheerful aspect; it is delightfully situated on a hill in the park, within easy range of the factory. This will afford an ideal home for a number of young women, besides being the social centre of the Woman's Century Club.

The place is in the hands of the most artistic of landscape gardeners, and there are lawns for croquet, lawn tennis, hockey, and other games. The winding driveway to the factory is being planted with trees and shrubs; the old gardens are being enlarged and planted so as to secure the maximum of privacy. This is only part of the scheme to make it "the finest industrial estate in America."

The National Cash Register athletic field and the boys' gardens are to be enlarged; there will be much additional playground for the men and the women. "A large grand stand, capable of seating several thousand persons, with a swimming tank on the ground floor, will be erected. . . . The Men's Welfare League baseball diamond will be directly before it, and the football field will be enclosed with a running track. An open-air gymnasium for the men, with bathrooms and dressing-rooms, is projected to be the M. W. W. L. on

the site just south of the grand stand." These are a few of the plans which will be realised by the time this book is in print.

It would be difficult to exhaust the list of welfare and educational works that have been organised by these 5,000 co-operating brains, under the inspiriting initiative of their president. The once infamous Slidertown is now South Park, and the whole of the surroundings are being bettered and beautified and turned into a veritable realm of pleasance. Thus we have an ideal factory in ideal surroundings.

But, it will be objected, this is a philanthropic delirium, a spendthrift extravagance that would ruin any but a marvellously prosperous business. No, it is the evolution of the higher business methods that will be taken as a matter of course in another generation or two. All the *live*, up-to-date firms are doing something in the way of welfare work; and the institution of conferences by the National Civic Federation will spread it more and more and improve the methods.

Whatever the amount or the kind of welfare work that may be done by others — and splendid things have been and are being done — no one has done so much as Mr. Patterson to make it known throughout the industrial

world; to demonstrate by the wonderful object-lesson at Dayton, by his lectures, and by means of the splendid missionary spirit he has infused into his employees, that *it pays*. It pays in dollars alone, to say nothing of the mental, moral, and physical gain of good-will and hearty co-operation in place of the worry, the fret and friction of smouldering strife, antagonism, and ill-will.

Wherever there is a National, or rather International Cash Register, throughout the world, its bell rings out the old bad methods and rings in the new, — a new era of higher and more beneficent industrial development.

Welfare Work Applicable to all Cases — an Illustration

I will close this chapter with a little story given to me by Mr. A. A. Thomas, the secretary of the National Cash Register, which illustrates better than argument the vital fact that no business is too vast and no business too small to be benefited by welfare work:

" President Patterson insists that the principle and the method of welfare work is applicable in all cases of employer and employee. And I believe he is right. The necessity is

greater where workmen are employed in large numbers or are herded together; but I believe the principle of it is, *pro tanto*, just as much between the mistress of the house and her kitchen girl as it is at the National Cash Register. It is applicable between a farmer and his hired man and, in fact, in all cases where the relation of employer and employee exists. It would not be hard to preach on the subject and to tell more plain and particular truth that needs to be known, and is either denied or forgotten, than you can hear in all the Dayton churches next Sunday.

"I will tell you a little story here. It is one which President Patterson told me. He was giving in London his factory lecture, and said, as he often does, that these things are applicable anywhere. Someone on the front seat rose and stopped him to ask: 'You say so and so; I wish you would tell me how that could be applied in my business. It is all very well if a corporation is big and rich like yours, but how can I use such things? I have a lunch counter and four girl employees.' Mr. Patterson asked his name and address, which were given, and the lecture went on. The next noon Mr. Patterson went to that restaurant when the proprietor was out, and, taking

lunch, got into conversation with the waiter girl, saying that he was a stranger and an American, and that he wanted to ask a few questions. I will not take time to write of the adroitness with which he put his questions, as he told me the story.

"'You have one advantage here, for you get your lunches without much expense.'

"'Oh, no, sir! We get nothing here, and have to go outside and buy it, and it eats quite an item into our wages.'

"'Well, I understand that girls who work in places like this are pretty well paid.' The wage was given — incredibly low.

"'Yet you do not have to work undue hours.' She gave the hours, which were incredibly long; and she went on to say that they were longer because, as they could not afford the penny bus, some of them went far out of their way to accompany the others into dangerous regions going home.

"Mr. Patterson went to the Continent, but returned and gave his lecture again in London, and when he reached this part he told the story. The restaurant proprietor was there (but Mr. Patterson did not know it), and he was struck. At a later lecture, when Mr. Patterson told the story again, he rose and

said, 'I am that man.' And then he told how he went home and got to thinking about the matter. As the result of his thinking he saw plainly how he might let his waiter girls have their lunch in his shop at cost, which was almost nothing. He told how, without harm to himself, he had shortened their hours; how he had asked for suggestions with some reward for those he might adopt; how the proposition came as a total surprise, but in return came a number of suggestions which were of substantial benefit to the business. And he had gone further, and in requital for this had given an increase of pay which permitted his waiters to ride, instead of walking both to and from their homes. Then he added, 'I want to tell these things because I have gone long enough already to feel sure the whole experiment has not cost me any money!'"

The Social Secretary

The foregoing refers to welfare work at a factory and to stores dealing with its products; but it is equally applicable to the retail business and to the "universal provider." Marshall Field and Company of Chicago, employing nearly 8,000 people, have adopted many

of the welfare features already described in connection with the National Cash Register. Their motto is "Loyal, Satisfied Employees," and they have striven to attain that ideal, and with great success. They insist on all-round honesty to the public as well as to themselves. There is the most careful attention to wise and just promotion, and they endeavour to realise their motto, "Merit Wins," and make it an actual statement of fact. To be employed by them is a certificate of character. That this great firm, situated in the midst of that vast vortex of well and ill-directed energy, should have taken up welfare work with their usual thoroughness is a fine example that will have far-reaching effects.

Marshall Field and Company's "Department Store" is one of the wonders of the commercial world. It occupies a whole block and towers many blocks heavenwards. When one is shot upwards in one of their *express* elevators the floors flash past one like cinematograph pictures. Their windows, on all of the four streets they face, are set out by trained and highly-paid artists, and each is an "arrangement" of exquisite beauty; a dream of lovely colours in perfect harmony. Only a very few objects are put in one window,

and only those which set each other off, either by contrast or by harmonious blending, so that everything is made to look precious. This is an immense advance on the horrible overcrowding of windows, in which there is such a conglomeration of conflicting colours that everything is displayed to the worst possible advantage and everything is made to look common. This artistic window-dressing really studies the welfare of the passer-by who happens to have an artist's eye, and turns the arid streets into a flower garden of delight. Beauty pays!

The Social Secretary, or the Welfare Secretary, tends to fulfil an important function not originally contemplated. In her evidence at the Conference on Welfare Work, Miss Hirschler, who worked such a great and beneficial change at the retail store of Messrs. Filene's Sons Company of Boston, soon found that her position became a judicial one. She represented the interests of both employer and employed; she had to hear the complaints of the workers, represent the employer's views to them, and their views to the manager. The showing of both sides of the case sympathetically to the aggrieved workers frequently removed the trouble. And, on the other hand, by sympa-

thetically representing the workers' views to the manager, real grievances were at once rectified. When deserved promotion tarries, a word from the social secretary puts things right. By her womanly tact she has won the confidence of both sides, and is able to do the work of a board of conciliation and something in the way of arbitration. Thus she has aided harmony and efficiency in many ways.

Mrs. Isabelle F. Nye, as social secretary, has worked wonders for the Siegel-Cooper Company of New York City. Her experiences have been similar to those of Miss Hirschler. The first great difficulty is the suspicion and distrust of the women workers. Their first feeling is that of resentment; if the social secretary has tact and wisdom enough to overcome that, then a very wide field of usefulness opens out to her. The personal touch is all-important. Mrs. Nye soon became guide, philosopher, and friend to thousands of girls; she made them feel that she was a very present help in time of trouble; that they could always depend on her sympathy and counsel; and above all she was an inspiration. Many of these girls were as ignorant as children of womanly duties; so, when she had them as guests at the sumptuous vacation house, she

and her daughter would in many unobtrusive ways initiate them into household duties, — always by observing the quaint old philosopher's advice: "If you would bring up a child in the way it should go, go that way yourself!"

Mrs. Wheeler of the Shepard Company of Providence, R. I., and other ladies gave identical testimony. In every case where the welfare work is on the right lines the results have been beneficent beyond expectation. There has been more and better work and better feeling; the lives of the workers have been made brighter and happier, and industrial conditions have been rendered more stable.

So for the wise employer the question is not: "Can I afford to do this welfare work?" but "Can I afford *not* to do it?"

CHAPTER XVI

THE HOUSING PROBLEM

THE housing problem is a puzzling one everywhere. In English rural districts the difficulty of providing bright, sanitary, and cheap cottages for farm workers is one of the causes of the crowding into towns, and the consequent physical deterioration of the race. Model employers, it is true, have in some cases provided model cottages for their work-folk, but these efforts have been largely philanthropic; the problem needs to be solved on business lines. Garden cities promise to remove one part of the difficulty; but much will remain to be done.

In some cases manufacturers have had to grapple with the question in their own way. Messrs. Lever Brothers of Port Sunlight are among the most successful of these. Finding their original location too small for their growing business, they determined to remove to a spot where they could erect both works and a village for their employees. The desired spot

was found on a branch of the River Mersey, a few miles from Liverpool. The land being considerably above the river level, there were a number of ravines, or hollows, branching out in various directions, which were filled with water at high tide, but displayed unsightly mud-flats when the water was low. The ravines were filled up to just above the high-water mark; the banks were grassed and planted, winding walks were laid out, and comfortable seats provided. In this way the curving gullies were made pleasant and picturesque features of the village. Across these depressions have been built beautiful bridges, which add greatly to the charming appearance of the place.

In planning the village the first care was that none of the cottages should have their backs to the railway line. Mr. W. H. Lever said on this point: "It is remarkable how little this is thought of in laying out building land adjoining railways, and yet I know of no feature of such an estate that ought to have more careful attention, both on the grounds of the financial success of such undertakings and also in the interests of the public using the railway."

The first purchase of land was about 56

acres; 24 for the works, and 32 for the village. Now there are 90 acres devoted to the works and 140 to the village. Upon this land about 600 ideal cottages have been erected, with plenty of room for gardens and lawns. They are all very picturesque, and there is great variety. They are a cross between old English timbered cottages, much glorified, and modern suburban villas, and among them is a copy of Shakespeare's cottage at Stratford-on-Avon. The timbering, being darker than the walls, makes effective decoration, which can be seen at a great distance. The plasterer's art has been made much of, and contributes a pleasant variety to the cottage decorations. Many of them are embellished with effective wood-carving.

The latter point gives rise to an idea that deserves to be spread. As wood-carving is practised in manual training schools, students showing any artistic leanings might be encouraged to carve on a scale suitable for cottage decoration. The student should be required to design his own work from natural objects and not from "copies." This would stimulate their invention, and be doubly valuable as training. It would not matter how rough the work, or how quaint the design. In this way

we could reproduce, as nearly as possible at this age of the world, the conditions under which the old Gothic sculptors worked. These, according to Ruskin and William Morris, were the ideal conditions for bringing out the best in an artist. No grown-up person can reproduce the quaintness, naïveté, and charm of the works of these delightful grown-up children sculptors; but our youngest striving for self-expression might do it, or give us something equally delightful. In any case the carvings would admirably serve the purpose, would cost next to nothing, and would provide admirable manual training for the children. The old sculptors who embellished the Gothic cathedrals with such a wealth of quaint inventions attained that stage at which the art of the Japanese was arrested, the latter going further only in exquisiteness of finish. In both there is the same love of natural forms and the same grotesque quaintness in the treatment of the human figure.

This digression was suggested by the unusually bright and picturesque appearance of the flower-decked cottages at Port Sunlight. Great care has been devoted to these dwellings. If a cottage is too large, it entails too much work on the housewife; if too small, inconvenience

and manifold discomforts arise. They are fitted with baths and every convenience, and are perfect for the purpose; and there are several types to suit the different classes of workers.

With the six hundred cottages there are all the other institutions that go to make up a model village. There is the Gladstone Hall, having a well-appointed stage for concerts and theatrical performances, which are given during the winter months. It serves as a dining-room for the men; it has a kitchen, with a cook and assistants for heating the workpeople's food. The Hall is hung with pictures, some of which are the work of one of the employees, who displays great ability.

The Hulme Hall is a fine, cheerful building, which serves as a Girls' Restaurant and Dining-Hall. The cooking and serving arrangements provide adequately for the varied requirements of over 1,000 girls. Excellent food of all kinds is supplied at cost.

A well-equipped Technical Institute affords educational facilities for the employees and the non-residents as well. There is the Lever Free Library and Museum; Men's Social Club; a fine church, with a splendid organ; and there are large and perfectly appointed schools. The walls of the latter have the usual maps and

school pictures, more instructive than artistic; but in addition to these are a number of reproductions from the finest works of art. Messrs. Lever seem to be art lovers, as their reception hall at the works is hung with very fine paintings, and everywhere works of art are in evidence.

An unusual feature is the "Auditorium," an open-air theatre, which deserves a better climate. There are all sorts of clubs for all sorts of games, with a splendid gymnasium, open-air baths, etc. They have a prize brass band, and a boys' brigade with its band. They have formed a company of volunteers (1st Cheshire Royal Engineers). There are societies of all kinds, — literary and scientific, choral, musical, dramatic, a book club, and a mutual improvement society. In short, there are all the evidences of intensely active, full, and varied life. To still further improve the happy relations between employers and employees, yearly trips are organised to interesting places; one of these being to the Great Exposition in Paris, of 1900.

This glance at English Welfare Work has taken us somewhat beyond the housing problem, although they are closely related. Mr. W. H. Lever, in one of his interesting lectures,

gives some particulars as to the standard types of the cottages.

"In planning the standard type the idea has been," he says, "first, to provide a garden as a foreground to the cottage and screen it from the road. These front gardens are in every case kept in proper order and cared for by ourselves. We have found by experience that no other plan is successful in securing a character to the village and avoiding the unsightliness of here and there the obtrusion of neglected plots of garden which would mar the whole effect. This care by ourselves of front gardens is effected at a cost of 3d. per garden a week.

"In addition to these front gardens we have also allotment gardens to almost each block of cottages. These allotments the tenants cultivate themselves as vegetable gardens, or they properly fence and use them for poultry, etc. These allotment gardens are placed as near as possible to each cottage, and are the safety valve of the village. Their use and appreciation by the villagers speaks more eloquently than any words of mine could do of the absolute need for such means of healthy recreation. . . .

"The cottage type provides for three bedrooms upstairs, and living-room, kitchen, scul-

lery, bathroom, and larder on the ground floor, with enclosed yard and the usual outbuildings." The dimensions are given in the plans; the greatest length of any of the rooms seems to be 16 or 17 feet, by 14 or 15. Some are larger and some are smaller. Mr. Lever continues: "Our experience leads us to believe that any variation from these dimensions has not been popular with the villagers. If the rooms are made larger it entails more work on the wife than she is able to devote to their care, and therefore the house soon loses its tenant. On the other hand, if the rooms are smaller they will not accommodate the necessary furniture, with a like result. In fact, a workman's cottage must fit like a glove the wants of the tenant if it is to be a successful attempt to provide for the happiness and comfort of himself, his wife and family."

The foregoing describes the ordinary cottage. "The parlour cottages differ from the ordinary cottages in having an additional bedroom on the first floor and a parlour on the ground floor. In a few cases the scullery in these houses has been fitted with a kitchen grate, so that all the cooking could be done there, leaving the kitchen to be used as a dining-room. The general type adapted for the par-

lour houses has proved popular, and therefore has been settled upon as permanent.

"The financial aspect of the village at Port Sunlight is soon told. The capital it has taken to buy the 140 acres of land, build the cottages, houses, schools, shops, institutions, clubs, etc., and including making the roads, laying out the parks, etc., has been over £350,000.

"Our standard type of cottage thirteen years ago cost us £200 each to build, and identically the same cottage in 1901 cost us £330 to build. The parlour houses cost us then about £350 each to build, and now about £550 each.

"Upon this £350,000 Lever Brothers receive no interest or return whatever, the rents being fixed at such an amount as only to pay for taxes, repairs, and maintenance. The rents have had to be increased from 3/—per cottage per week, to 5/— per week, owing to increased cost of maintenance of parks and roads and of the cottages themselves."

Mr. Lever says elsewhere that if the firm have no £.s.d. return from the village, they have a cheerful and contented body of workers, and that the business is so aboundingly successful that they are quite contented with the state of things. As the able editor of "Progress" said

in reply to my question: "It pays in an invisible way."

Mr. W. H. Lever, who has thought deeply and spoken wisely on the capital and labour problems, has introduced a new idea which is well worth the consideration of those who wish to do something for their workpeople and yet do not care to go to the length of profit-sharing. This is what he calls "Prosperity-Sharing." He does not think profit-sharing has been an unqualified success. It is a wrong principle, he declares; those who cannot share losses ought not to share profits. But he believes that a successful employer ought to share his prosperity with his workers. A portion of the profits should be set aside for their benefit, — not to be paid out in bonuses, but into a common fund or "reservoir," from which contributions should be made for bettering the conditions of labour. Here are some of his own words on this interesting point: —

"In order to carry this into effect, some reservoir must be created into which the share of profits belonging to labour can be stored during prosperous years, to be more evenly applied both over varying years and for a greater variety of benefits than would otherwise be possible. On no account must any di-

rect payment to individuals by means of bonus arrangements be made under a prosperity-sharing scheme. This would be absolutely fatal to success, and introduce all the drawbacks and objections inherent to profit-sharing. Nor must sums be credited to individuals for their sole benefit. The funds in the reservoir must remain the property of the firm, to be held in trust, but without obligation, for the benefit of the labour at the time being engaged in the employ of the prosperity-sharing firm. Labour on ceasing to be in the employ of the firm must have no claim on the fund set aside for prosperity-sharing. The funds in the reservoir or elsewhere must be agreed to be for the benefit exclusively of labour during the time of its employment in the active business of the firm, and for the bestowal of pensions on such labour at the discretion of the firm, and without any power on the part of labour to demand pensions or benefits as part of a contract.

"The benefits of prosperity-sharing may be applied to labour in a great variety of ways, and it would be entirely out of place here to lay down hard and fast rules. All that is possible to state is that contributions out of the fund may be made to every scheme that has for its object the social and industrial betterment of

labour. One of the best methods for the application of the principle of prosperity-sharing is to be found in building cottages to be let to labour at low rentals. This plan is most effective in elevating and bettering the conditions of labour, and has the additional advantage of ensuring that the wives and children shall share in it. But this method is the one that is most often impossible of application, and in any case is only one of hundreds of schemes. Contributions may be made towards the building of clubs, recreation halls, institutions, summer holidays, winter entertainments, sick and burial societies, and hundreds of others. By contributions to objects such as these, labour enjoys the fullest liberty in managing its own institutions outside the business, whilst management is maintained in its proper place inside the business."

This is very interesting as throwing light on the firm's methods. Prosperity-sharing seems to be a principle deduced from their practice, rather than a practice built upon the principle. It is manifestly not a final or complete solution of the problem; but it is most ingenious and it works admirably in this case and would do so in others. It certainly surmounts many of the difficulties of profit-sharing, and it

should be given a fair trial wherever conditions are favourable.

A Factory in a Garden

The above is the well-earned title of the famous Cocoa Works of Messrs. Cadbury Brothers, at Bourneville, near Birmingham, England. Messrs. Cadbury might be reincarnations of the Cheeryble Brothers, whom Dickens immortalised, as their benevolence is of the same overflowing nature. It is true they have been moved by religious promptings, but their religion lifted itself above creedal narrowness. Their work is largely philanthropic, and as such is worthy of all honour, but I am more interested in the higher development of business which attains like results simply as good business, and which can be recommended even to the grasping employer as a good investment.

But the Bourneville Village Trust is the embodiment of a monumental idea which is worthy of more extended application.

The village of Bourneville is somewhat like that of Port Sunlight, — varied dwellings, picturesque, comfortable, and sanitary. There are the same Welfare Work features: 12 acres of

recreation grounds for the girls employed at the factory, tennis courts, cricket and hockey grounds, a pleasant tree-shaded lawn, and a fine pavilion. The men's grounds for their various games are even more extensive. The fine old Bourneville Hall, with its pleasant grounds, is now used as a boarding house for the girls who are orphans, or who are living at a distance from their relations. There are ideal almshouses, swimming baths, and a number of other admirable features.

The village has a distinctive claim on our attention in the fact that Mr. George Cadbury has vested it in Trustees, and that it is for the benefit of all, and not confined to the factory employees. The deed by which it was handed over by the founder is a model of forethoughtful wisdom. Mr. Cadbury had been deeply impressed by the deplorable housing conditions for workmen around Birmingham, and he determined to give a large part of his estate for the purpose of improving them. His objects are thus stated: —

"The Founder is desirous of alleviating the evils which arise from the insanitary and insufficient accommodation supplied to large numbers of the working classes, and of securing to the workers some of the advantages of outdoor

life, with opportunities for the natural and healthful occupation of cultivating the soil."

It was decided that there should be no crowding either of the cottages or of their occupants. So every cottage has its garden fore and aft; the roads are wide and bordered with trees; and one-tenth of the land, in addition to roads and gardens, is devoted to parks and recreation grounds.

"This gift to the nation, including subsequent donations, is valued at about £200,000; it consists of 458 acres of land, and the village of Bourneville. The revenue, whether from house and farm rents, ground rents, or any other source, is paid to the Trustees, and must be employed by them, after making provision for the repair and maintenance of the property, in building more houses and further developing the estate. So far, only about 100 acres have been laid out for building, but when the whole is completed the surplus revenue is to be applied to the purchase of other estates, either in the neighbourhood of Birmingham or elsewhere, to be developed as manufacturing villages. It will thus be seen that the gift is absolute, none of the revenue returning to the donor or his representatives, but all going into the hands of the Trustees. The scheme contains within it

a principle of continual growth, and the income in course of time will so increase as to admit of an almost indefinite extension of the benefits of the gift."

While ample powers are given to the Trustees in all directions — such as to give land or erect buildings for places of worship, hospitals, schools, technical institutes, libraries, gymnasiums, laundries, baths, and kindred objects — it is expressly stated that all sectarian influences and jealousies are to be excluded or guarded against. Further, that the sale of intoxicating liquors is only sanctioned by the unanimous consent of all the Trustees; and that all the profits arising therefrom " shall be devoted to securing for the village community recreation and counter attractions to the liquor trade as ordinarily conducted."

It would be difficult to find a more splendid bit of philanthropic work than this, or any laid out with such statesman-like foresight and wisdom. The principle of growth is, perhaps, the most valuable of all. The houses are so eagerly sought for that it is manifest that if conducted on severe business lines higher rents could be obtained, the Trustees could develop the estate even more rapidly, and could sooner begin their beneficent work elsewhere. As a plague-spot

may spread until it infects a whole neighbourhood, or even distant parts, so, on the other hand, one health-spot may spread until it blesses the entire country, and sends a beneficent wave of stimulating suggestion round the world.

If a number of these health germs were planted in various parts of England they would grow and grow until this phase of the housing problem would be solved. Here is a chance for millionaires to immortalise themselves. But whatever may be done in this way, the example set at Port Sunlight, and elsewhere, of housing the workers on what might be called the higher business principles, is one that is bound to spread.

There are two increasing difficulties about which I should like to throw out suggestions. Mr. Lever tells us that in thirteen years the cost of building cottages has increased by about seventy-five per cent, and when I was there the supply of garden allotments was not equal to the demand. Such a model village increases the value of all surrounding property, so that more land can be had only at increased cost.

Mr. Lever suggests that cottages should be built so as to stand for fifty or sixty years only, and thus effect a saving in cost. He also thinks search should be made for cheaper building

materials. But there is another way in which these difficulties may be lessened. At the village at Port Sunlight, and also at Bourneville, the dwellings occupy about one-third of the land belonging to each one; this has been laid down as an essential condition at Bourneville by Mr. Cadbury. On this principle a village spreads over a wide area, and the maximum of land is covered by the buildings, with almost the minimum of housing accommodation. Now, as well-to-do people in the suburbs much prefer flats to houses or villas, why should not people employed in factories prefer them? If we build six flats in one block that gives the same accommodation as six cottages, we save a great deal of land for gardening purposes. The cost of the flats would be less than for the same amount of accommodation in cottages, and a few of these blocks in the centre of a village would give it an imposing appearance. They would be popular, for there is a certain sociability about them that is not to be had with detached dwellings. At one or more corners these blocks of flats should have towers for spiral stairs, fire-proof, and with landings at the balcony with which each flat should be furnished. The stairs should lead up to the roof, which should be flat, and might be laid out as a roof

garden, or a general meeting place where the men could smoke or the women take their needlework in fine weather, and all enjoy the view and the fresh air. The outside stairs would be the best of fire escapes, and should be in addition to the inside stairs. By this means sociability would be promoted and many opportunities would be given for co-operative efforts; above all there would be more land for gardens, which have been shown to pay well in cash in addition to the other inestimable benefits of gardening as an ideal form of exercise.

The other difficulty is, of course, the everlasting land question. This is at the back of all social problems; it acts like a sort of creeping paralysis which hampers all efforts at human betterment, as the landlord is ever in the background to carry off the lion's share of increased values. We are only playing at political economy until this problem is solved. Our economists have been singularly at fault in dealing with this stupendous question. They all recognise that it is fundamental and that there is only one real solution; but how to bring that about has been the difficulty. Some have proposed schemes that would require the volcanic forces of a revolution to carry them; others

have proposed plans that upset all accepted ideas of property, and are equally revolutionary; others have proposed schemes right enough as abstract justice, but quite unworkable owing to the vastness of the change and the general dislocation of the thousand and one interests that have grown up about landed affairs.

The plan formulated by Mr. George Cadbury for the Bourneville estate contains the germ of the only true solution: that of allowing the profits of one estate to go toward the purchase of more land to be public property. This idea occurred to me some years ago, long before I heard of Mr. Cadbury's scheme, which he thought of only in connection with the housing of workers, and by no means as a solution of the problem that has so completely baffled the political economists. My own scheme deals only with the great problem, and is one which all far-seeing reformers, to whatever party they belong, should welcome. The very slightest outline of it would over-burden this chapter, so I hint the plan in the appendix. I give the word which sufficeth for the wise, and it can be skipped by those who are not interested in the ultimate problems.[1]

[1] See Appendix C.

CHAPTER XVII

THE HOUSING PROBLEM IN THE UNITED STATES

THIS subject would require a volume to itself, and only a few hints of what is being done can be given here. From a distance one thinks of the United States as a homogeneous unity, and it takes a closer acquaintance to realise that instead of being one great country, it is a big collection of big countries, with a great variety of climates and varied conditions, and a very mixed population; but there is a unanimity of patriotic feeling greater than would be expected under the circumstances. The housing needed for the fierce extremes of temperature in some of the States differs greatly from that needed on the Pacific Coast, and the feeling of the different peoples would vary according to the percentage of new arrivals who are used to old-world conditions to the free-born American, with his independence and his resentment of paternalism.

In many cases American workmen have greater facilities for obtaining houses of their own than in the old countries. The extensive

use of wood for cottages in the States and the sparing use of garden walls and fences tend to lessen the cost. Some interesting light is thrown on this subject by Mr. S. J. Gorman, in the valuable pamphlet from which I have already quoted: — "The National Cash Register Factory as seen by English Experts, With Notes." These notes, invited and compiled by Mr. Alfred A. Thomas from officers of the company, to justify, correct, or explain the reports of the English experts, give the best kind of first-hand information.

Housing Problem of the National Cash Register Workmen

"There is no housing problem — at least none that the men cannot best solve for themselves. They are in the habit of doing so unaided. Mr. S. J. Gorman says: —

"'I am foreman of the janitor force of seventy-five men. I own my house and four others, and have lived for about twelve years, a quarter of a mile from the factory, in the new suburban settlement, near the National Cash Register Extension House. We call our little settlement, Rubicon. It has 200 families, about one-third of whom work at the National Cash

Register. About us, homes for working people are being rapidly put up on newly plotted ground. Lots 50 × 150 feet, have sold at $300 and less; price rising, they now sell for $600. On such a lot a frame house of five rooms, with lot improvements, can be built for say $1,100. If a man has $300 to pay down, he can get the money easily from the building association at 6 per cent, making weekly payments until the debt is paid off. Almost all of the house owners in our neighbourhood are doing so in this way. Mechanics and clerks generally reckon to pay one week's wages for a month's rent. A mechanic with steady work, earning say $16 to $18 per week, if he pays one week's wages for rent, can get a house with six rooms, bath, furnace, and modern improvements. Everything is new in our region. It is healthy and has no drawback that I know of. My janitor force are all coloured men and there are 75 of them. They get from $10 to $11 per week. I should say that one-third of this force have bought their own homes and are paying for them.' " Speaking from fifteen years' experience Mr. Gorman believes that over half of the workmen own or are buying their own houses. Abundant street-car lines take them rapidly to all parts of Dayton; and the factory folk dislike

congregating in any particular district, and prefer following their own inclinations. "The men prefer to take care of themselves, and are able to do so in the matter of housing. They need no assistance from the Company for this purpose. The building associations in Dayton are many; they are all, or nearly all, very good. Some of them give money at 5 per cent interest. They are managed by the workmen themselves, who understand and like them, and they don't need anyone to take their places."

That note of independence is the key-note of the situation; and while many workpeople do live in villages specially built for them by their employers, if this independent spirit is not allowed for, trouble results.

Great Pullman Town Experiment

This was shown in the case case of Pullman Town, one of the largest and most notable experiments in industrial housing yet made in America. It was built by the Pullman's Palace Car Company, and was begun in 1880. Mr. George M. Pullman, anxious to do the best for his workmen, secured 4,000 acres of land about 14 miles from Chicago; this was scientifically drained, and laid out artistically by the best

talent available. Over 1,520 substantial buildings were erected, with variety in character to suit the varied requirements of the workers. The eight miles of streets were wide and well-kept, and the lawns in front of the houses were cared for by the Company. In the large market all shopping could be done under cover. There was a fine Arcade, a handsome theatre, bank, offices, and only one hotel; there was a church, library, and everything necessary for a handsome and unusually complete model town of 14,000 inhabitants. The entire cost was about eight million dollars; and it returned a little over 4 per cent.

The one great fault in the scheme was that nearly everything was done for the men, and very little by them. They were not allowed to purchase land in the town, although they were assisted when they wished to purchase land outside. Crime and drunkenness were reduced to the minimum, and thrift was encouraged; so Pullman's idea was realised. As a benevolent despotism, however, in a democratic country, it was fatally defective, and instead of eliciting gratitude, it seemed to provoke hostility. At all events, when, in 1894, to tide over a period of depression, it was proposed to place the men on something less than full time, to keep the shops

open, it led to one of the fiercest strikes of the time. This seems incredible, and a remarkable case of unreason; and it is only possible to understand it by perceiving the deep-rooted distrust of the men. A New York banker told me of the generous treatment of their employees by the great Steel Trust. They allowed their men to purchase shares in the Company; and when there was a slump in the shares the Company offered to purchase back all those shares at the price paid by the men. That is the shop-window statement. I submitted it to an unusually intelligent and representative workman; and he said, "Yes, that was so; but they immediately reduced the men's wages. *Labour always gets the worst of it.*" That is the belief that works such mischief.

Mr. C. C. Michener, Secretary of the Industrial Department of the International Department of the Y. M. C. A., New York, in his evidence at the conference on Welfare Work, gave two striking instances of this distrust. He says: — "I saw a place the other day where they were serving coffee for nothing, and I found a man who was not drinking the coffee, and I said: 'Why don't you drink it? Don't you like it?' He answered: 'Of course I do.' I said: 'Well, why don't you drink it?' Said

the man: 'No; if I drink a cup or two of coffee my employers think I will do seventeen cents' worth of work more than if I did n't drink it, and the Company gets the benefit, and I don't propose that they will get ahead of me in that way.'" The other case is striking. "I was in a community the other day where the Company had just completed a beautiful $40,000 memorial library building, with a fine equipment, for the use of the men. I was invited by the management of that Company to look into the situation that existed there. I found a movement on foot among the employees for the erection of an $8,000 building which would give these same benefits which they could run themselves." These instances go far toward explaining an otherwise inexplicable state of things.

In the case of Pullman, the writer of "Democracy and Social Ethics" says: —

"The basic difficulty lay in the fact that an individual was directing the affairs of many men without any consistent effort to find their desires, and without any organisation through which to give them social expression. The president of the Company was, moreover, so confident of the righteousness of his aim that he had come to test the righteousness of the process by his own feelings, and not by those

of the men. . . . A few months after the death of the promoter of this model town, a court decision made it obigatory upon the Company to divest itself of the management of the town as involving a function beyond its corporate powers. The parks, flowers, and fountains of this far-famed industrial centre were dismantled, with scarcely a protest from the inhabitants themselves."

Institutions have to keep abreast of the times, and while great industrial concerns have to be run on individualistic, almost on military lines, while the present competitive war rages, the social concerns have to adjust themselves to the democratic — not to say the socialistic — spirit of the time. That is a world-wide impulse, and anything that opposes it begets a resentment that seems unreasonable, and quickly obliterates all sense of favours received. So in housing and in all welfare work this fact has to be carefully borne in mind, or failure will result.

Some employers prefer to assist their people to buy their own houses, rather than take the responsibility of providing them. Mr. W. G. Mather, President of the Cleveland Cliff Iron Company, Ohio, recently said: — "We encourage our employees to own their houses, not by

advancing money, but simply by selling or leasing them the land, allowing long-time payments, very cheap land and cheap rents. We build as few houses as possible, as we find it better for our people to own their own houses." There are, however, many cases where men dislike being anchored to one spot by the purchase of their own homes, as they think it gives the employer an advantage over them in case of disagreement.

One of the greatest difficulties is to find the best form of house for the people, — to get a house, as Mr. Lever says, that will fit their requirements like a glove. Mr. J. E. Stevens of the Ludlow Manufacturing Associates, in his evidence at the Welfare Conference, threw some interesting light on these difficulties. They had cottages designed by architects, and designed others themselves, but neither were successful. Then they instituted careful inquiries among the housewives as to the kind of place they would have if they were building for themselves. Their principal idea seemed to be that of saving steps, to be able to get to the children, or to the baby when it cried, and then to get quickly back to the washing, cooking, or whatever work was in hand. " She would tell of the difficulties with the stove, and how far it was

downstairs to the cellar where supplies were kept; and so, keeping all these things in view, fresh plans were made, and then we found we had got a cottage that no one very much wanted to live in. Indeed, it became increasingly clear, and it is true of most of us, whether we work in a mill and live in a cottage, or do something different and live another way, we are not at all sure what we want until we have got it, and then we can usually show why we don't want it, and this is just about what happened in regard to our first new cottages.

"So we tried a different plan. We imagined ourselves in the position of the mill-worker's wife, and tried to think out the sort of surrounding that would best suit us if we had to wash and iron and cook and bake and care for the children and receive the wives of all the neighbours with the least possible inconvenience. We knew already quite well that human nature is much the same in every walk of life, and that those who work in mills have just the same sentiments as the rest of us have. When they received their guests they did not want to take them through the kitchen to reach the parlour; they preferred a front room or reception-room accessible from the front door, just as you and I do. Why not?

"We had to consider all these sentiments and provide all these things, and we began to plan houses on these lines. Then we had to remember that if we worked in the mill we should have to do all the things we spoke of, to keep house and bring up a family, and keep the house warm, and all that on a very small sum, say two or three dollars a day, or in many cases less than that. If you put yourselves in that position and imagine how it could be done, you will have an interesting problem to keep you occupied for quite a few hours.

"I am glad to say that we finally succeeded in planning cottages that proved very satisfactory, and make very attractive homes for those who occupy them. . . . Our favourite cottage has six rooms; three rooms downstairs, with a large pantry and shed adjoining, in which can be kept bicycles, the perambulator, wash-tubs, or other essentials of family life, without burdening the kitchen and without carrying them up and downstairs. There is a reception-room opening from the front hall and a dining-room next. It is gratifying to see how attractive these little homes can be made. Upstairs there are three bedrooms, also a bathroom, with open plumbing, and just as good as any I know of, with every

sanitary essential, but, of course, with an utter absence of anything palatial or ornamental. Everything is quite plain. Our rent for such a cottage is $7.50 per month, the water, which is a city service, being extra."

This excessive plainness might, as I have already suggested, be to some extent overcome by setting the manual training scholars to work carving, and making things suitable for cottage embellishment; then they could be had for little more than the cost of the material, and the cottages would seem much more valuable. I will give a further quotation from the evidence of Mr. Stevens, as it shows how often the unexpected happens. Probably the jealousy of housewives will explain one of the curious facts he mentions. If Mrs. A. living in a detached cottage can look down socially on Mrs. B. living in a flat, or vice versa, it would cause trouble.

"We own in our town something more than a thousand acres of land, and we own nearly all the buildings and even the church, but with all this room a little economy in space is sometimes necessary. Accordingly, on the leading street in our village, which is usually more popular than the rest, because it is the leading street (for in these matters factory people are just like all other people, and have the same

sentiments as you and I have), we knew that the main avenue of the town would be the most attractive to live on; so we thought we must use space more closely than in the somewhat extravagant manner of having large lots with small cottages. We decided therefore, to build some modern blocks, containing small apartments — such as are found in the best avenues of all cities, except that, of course, ours would be more modest and simple in every way. Strange to say, this venture has not been successful at all so far, since no one apparently wants to live in a block, no matter how well contrived. Cottages have their educational value, and all prefer to live in separate houses; indeed many express themselves as unwilling to live in any other way. Yet they would occasionally leave us and pass on to villages near by in which there were nothing but tenements of a more or less sorry order, and they would live in those tenements without complaint; but they were not willing to live with us unless they could live in a separate cottage home. You see they had in a way established a sentiment about what constitutes a desirable home, and there is a vast deal of sentiment in the lives of all people which we do not always discover until we put ourselves in their places, and it is only by doing

this that we can learn how to deal equitably and successfully with other people."

These are wise words; and a knowledge of human nature is an invaluable asset. But, as in this case, we are apt to come upon things in human nature which, for want of a scientific term, we should be apt to describe as sheer "cussedness." If in this case these apartments on the main avenue had been rented a little higher than the cottages, so that Mrs. X. could have held her head a little higher than Mrs. Z. living in a cottage, they would perhaps have been the most popular of all. *Cherchez la femme* and her jealousies, and you will unravel many mysteries. As we have already seen that the girls' jealousy of each other's personal adornments caused great trouble in a factory, which was overcome by providing them with what were practically working uniforms, so in the matter of housing, the wives' jealousy is a disturbing element; it is the feminine form of the democratic spirit and has to be allowed for. There is also the fashion of the time. In England there has been a perfect rage for flats; and the old sentiment of having a house all to one's self has gone under for awhile; but it may revive at any time, and people be as eager to get out of flats as they were to get into them.

One of the largest and most remarkable cases of housing and general social betterment was recently outlined by Mr. Lawrence Lewis, in the *World's Work* (March, 1905). It is the case of the Colorado Fuel and Iron Company, and it has resulted in the uplifting of 17,000 employees. The conditions were at the start the most horrible that could be conceived; crime, drunkenness, and filth abounded. The Forth of July debauch, in some cases, meant the stopping of the works for five days. The extent of the problem was staggering. Mr. John C. Osgood, chairman of the board of directors, and Mr. Julian A. Kebler, the general manager of the company, had 17,000 men at work, and had built for them thirty towns in Colorado, Wyoming, New Mexico, and Utah. The men represented over twenty different nationalities, with all their racial prejudices and antagonisms, and a Babel of tongues.

The first care was to provide a more wholesome atmosphere for the children. The filthy huts and cabins were gradually replaced by decent houses. Then kindergartens were started, in spite of the difficulties caused by the confusion of tongues. The Japanese, by adhering to their national customs, helped the upward movement. "For example," says Mr. Lewis,

" a gang of fifty Japanese miners, after working two days in one of the larger mines, sent a polite message to the superintendent that it would be impossible for them to continue to work unless provision were made for them to take baths every day when they came from the mine. The Company's surgeon — who had striven, sometimes vainly, with Mexicans, Slavs and Italians to induce them not to slaughter goats in their sitting-rooms, and at least to throw offal outside the houses, where the Company's scavenger could get it on his daily rounds — was made almost delirious with joy at this request. The superintendent had a large tank constructed of boiler-plate. Every day this was filled with fresh water, which was heated by a fire built beneath and by hot stones thrown into the water. At the change of the shifts, all the Japanese, who made no further complaints, went into this tank and thoroughly bathed before going to their homes. The Italians and other " Christian " workmen, who luxuriate in the accumulated sweat and coal-dust of years, and whose children are regularly " sewn up " for the winter, spoke with contempt of the " little heathen monkeys " who " must be very dirty since they love to bathe so much."

This is a curious touch from the realms of topsy-turvydom; and it is certainly providential that a vast country like America should have remained undiscovered until so late in the world's history, and is thus able to play the part of mixing-vat where all these various peoples, with their national angularities, may be polished and brought more into line with civilisation. In the process the higher qualities of each race tend to come to the top, and thus raise the general type.

"With the social betterment work already done by Mr. Osgood and Mr. and Mrs. Kebler as a start, in the spring of 1901 the men at the head of the Company decided to organise the work on a systematic basis. Accordingly they created a Sociological Department. In addition to his duties as chief surgeon, Dr. Richard Warren Corwin was made superintendent. An assistant was employed to travel from camp to camp as his representative, to keep constantly in touch with the people, to hear suggestions, and attend to details. An illustrated weekly magazine, *Camp and Plant,* was established to furnish a medium through which the sociological and medical departments could reach the people, thus supplying a newspaper to many camps that had none, and an illustrated maga-

zine at a nominal price to all employees who cared to subscribe. This helped to bring the people in the several camps closer together and to stimulate healthful rivalry."

Thus the press here as elsewhere is playing its civilising part. Most of the great American employers realise its inestimable value. Mr. John H. Patterson says that transportation and publication have been two of the chief factors in the greatness of the United States. To get about easily and quickly, and to have your goods — and above all your ideas — spread abroad widely and quickly, are vital elements of success. Cheap books and cheap newspapers are the civilisers, says Mr. Patterson. Teach and learn and learn and teach, is the mate motto to his "do good and make money, and do more good with the money so made," and both are texts from which he has preached many a lay sermon on social and industrial betterment. In these wild mining camps the illustrated newspaper, the library, and the actual circulating library, that is, the sending round of boxes of books to the different centres, and changing them as often as need be, have had an immediate beneficial effect. "Illustrated articles in *Camp and Plant* on hygiene, anatomy, physiology, and 'on what to do in emergencies,' monthly bulletins

on these subjects circulated gratuitously, and placards posted about the camps, as well as illustrated lectures and personal explanations by camp surgeons — all have helped to teach the workmen that dissipation and dirt are the greatest allies of disease and death."

The drink trouble was the most difficult to deal with, as it demoralised men, women, and children. Prohibition failed abjectly. Interference with the right to make beasts of themselves was resented as an infringement of the glorious principles of freedom, and stimulated ingenuity in evasion. Drink was smuggled into the camps, and sly grog-selling flourished. "Drinking became more closely associated with lower forms of vice, and cases of drunkenness became more frequent than in camps where saloons were allowed to run."

Of the various plans in course of trial, the regulated saloon in charge of a responsible person seems least effective. More promising are the club-houses where liquor-selling is counteracted by other attractions, and where "soft-drinks" are well in evidence. "Soft-drinks" is not a happy coinage; it does not mean drinks that are not made with "hard water," but temperance drinks. Where the club-house has been tried the works have not been stopped for a single day through drunken orgies.

"Early in 1901," says Mr. Lewis, "Mr. Osgood and Mr. Kebler decided that in the construction of new camps, the company should build all the houses. Plans were drawn for two, three, four, five, and six-room houses with projecting eaves, porches, and ornamentation. These were to be painted in different colours to avoid the dull-red uniformity of the stereotyped 'company town.' Upon the wide, regularly laid out streets each house was placed on its own lot, and in many cases the lots were inclosed by neat picket fences. Houses of different styles and sizes alternated." A good water service has been provided, and arrangements made for keeping the town clean. A great many other welfare features have been introduced, all making for social betterment. On the retirement of the energetic Mr. Kebler, Mr. Frank J. Hearne was appointed president; and he, after investigating the welfare work, became as enthusiastic in its favour as his predecessor, and the work is growing and prospering.

As I said at the beginning of this chapter, only a few hints could be given on so large a subject. There can be no doubt that the right housing of employees pays in something more than dollars.

CHAPTER XVIII

THRIFT AND OLD AGE PENSIONS

In nearly all welfare work much thought and attention is devoted to encouraging thrift on the part of employees. Many ingenious devices have been put in operation to encourage the workers to save for a rainy day, for sickness, out-of-work periods, and for old age; and many of these have been rewarded with gratifying success. But as Mr. Walter Hazell says, it is not wise to make a fetich of the virtue of thrift, as it is only one of many good habits, and, like other virtues, may be carried to an excess and become a vice. But with the increasing pressure of the war of competition the necessity for thrift tends to become greater. The pace is killing, and not to keep the pace is more fatal still. Men are becoming too old at forty, and in some cases at thirty-five; even in the mental realm we have a professor declaring that a man is too old at sixty. This is too much like the startling things which are fired off to awaken the echoes of the press and bring cheap advertisement. The fact is over-

looked that some shallow natures ripen quickly and fall, or that men may concentrate on a narrow specialty, make a splash, and then go under. It too often happens that a clever boy remains a clever boy all his life, and never "gets any forrarder." They go up like a rocket and come down like the stick. We overlook those men of larger build or of wider culture who ripen slowly and are young and growing when their juniors in years, through narrowness and too rapid development, have burnt themselves out. This consideration powerfully enforces my plea for all-round culture.

If the manual workers are to be shunted as too old at thirty-five or forty, and the brain workers a little later, then thrift will not meet the case, unless remuneration is raised to a height that would paralyse industry as now carried on.

This tendency to lower the working limit of a man's life will increase the seriousness of problems of which there has as yet been found no satisfactory solution on the lines hitherto tried. I refer to the question of provision for old age. I cannot deal here with the numerous individualistic schemes for encouraging thrift and for providing superannuation funds, pen-

sions, etc., as a mere catalogue of them would take more space than I can spare, my aim being to draw attention to new ideas and to throw out suggestions towards placing old ones in a new light.

The question of old age pensions is one of the planks of political platforms, and many schemes are actually in operation, abroad and in the British Colonies. But the true solution is yet to seek. The subject is admirably discussed by two doughty champions in the first volume of "The Pro and Con Series"[1] by Frederick Rogers and Frederick Millar. This is instructive, interesting, and almost amusing in the completeness with which each one demolishes the other's case. They made a gold-and-silver-shield case of it, and show the necessity of taking a different standpoint.

To me the proposition to provide workers with twenty or thirty years of idleness at the end of their lives is wrong and demoralising. People who have worked so long and have formed fixed habits feel like fish out of water when they have nothing to do, and lead an empty, discontented life when they might be leading a healthy, happy, and useful one. Nothing is so demoralising as idleness. When

[1] Isbister & Co., London.

a man is too old to run he should walk, and only when broken down utterly should he be carried. When a man's joints stiffen and he cannot keep pace with the front-rank workers in their strenuous industrial march, he should be placed in the first reserve — so to speak. In other words, when a man ceases to be equal to the heavier and more strenuous work, he should not be shunted into a siding, but put to other work, lighter and requiring greater steadiness. The change of employment would in many cases be delightful, and would make a new man of him. As he gets older the work should be further lightened and the hours be greatly shortened. It is the monotony of work that kills, and it is the excessive amount of it that makes it distasteful. If light enough and varied enough it becomes play-work and is as delightful as any other form of recreation.

There are difficulties and objections to this which I will consider presently. For instance, if you take a man who has been in the front rank and put him in an inferior post in the same establishment he will feel degraded. He will not be able to hold up his head so high with his associates; you are not likely to get much good out of him, and he will be unhappy. We need special organisation to meet the case.

The above objection is to the *principle* of providing an idle time for workers for a number of years, except in the case of sickness; the objections to its actual working are very grave indeed. In New Zealand and Australia, where it has been in operation for some years, the frauds and general demoralisation have been dreadful. People with properties have made them over to their children so as to qualify for the pensions. Well-to-do people deliberately neglect their parents and throw them on the care of the State. In some cases old people gave up comfortable homes where they were well cared for, drew their pensions, and lived in pig-sties so that they might spend the money in drink. In New Zealand two very curious cases came together before the court. "The first applicant was a man of 65, who possessed no means whatever, and whose record, although bad, was not quite bad enough to exclude him. This man obtained his pension without any difficulty. The next applicant was a man of 82, of good character, who said that he had been able to support himself up to that time. It appeared, however, that he had been foolish enough to earn during the year a total sum of £52, and the New Zealand law provides that a man with such an income

can obtain no pension. The court kindly informed him that the only way in which he could become entitled to a pension was by remaining idle for a considerable period, when he could apply again, and probably with success!" This, we must remember, was a man of 82, who for 42 years after the shunting age had made his own living.

In New Zealand socialistic legislation is undermining the self-reliance of the people, who flop on the government for everything. The consequent demoralisation is great, for we know that when pensions, or any government money is to be scrambled for, people have a way of mislaying their conscience.

Labour rule up to a certain point is beneficial, but in the large it is disastrous, and tends to class rule of a narrow and purblind kind. As my suggested remedy may seem to tend towards socialistic methods, a word must be said on a momentous tendency of the time.

Individualism and Socialism: The Madness of Extremes

It is not sufficiently realised that Socialism is the world-wide swing of the pendulum from the crudities of unchecked Individualism. It

is a reaction from one mad extreme to the other. Socialism alone is just as crude and incomplete as Individualism; both are complementary. A *scientifically organised State* will take the good of both and reject the errors of both. The trend towards Socialism is the greatest political portent of the time,[1] and it will require consummate statesmanship to deal successfully with it. Its power is an ever-growing one, and I firmly believe that its great enemy, the huge trusts, are unconsciously playing directly into its hands and leading the way to Socialism, while they fancy they are marching the other way.

It is useless to fight Socialism by frontal attacks; the only plan is to emasculate it by adopting all the good in it and leaving it only its errors. There are many things that can be done only by collective action, and that are better done by the State. But, on the other hand, there are many things that are incomparably better done by individualistic enterprise, and the effect on the workers is more beneficial than the generally deadening — not to say demoralising — effect of employment

[1] This is admirably shown by John Graham Brooks in "The Social Unrest." (The Macmillan Company. New York and London.)

under governments. The majority of departments under governments give the minimum results for the maximum expenditure. Individual initiative is crushed, or given no scope; all but the highest fall under a deathly routine and they soon adopt the "Government Stroke," which means doing the smallest possible amount of work. The only departments that work really well are those which come into the closest and most extended touch with the people. The post office is perhaps the best, as nearly every person in the State is interested in its efficient working and at once becomes aware of any serious shortcomings. The Socialist's idea of indefinitely extending officialdom, — of putting us more and more under its thumb and of shutting the officials themselves out from spheres where they would have freer and fuller scope for their energies, — is essentially unsound and would lead to rapid decadence.

But, as already said, Socialism is growing and increasing in political power, and may become the dominating factor, unless it is emasculated by the frank recognition and adoption of all that is good in it. Our thinkers should work out a scheme combining all that is best in Individualism and Socialism; they should give it a happy title and then preach it and

hold it up as a working ideal in opposition to the unwise extremes of crude Individualism and of equally crude Socialism.

I have been compelled to glance at these larger issues, as individual reforms can only be helpfully considered when viewed in relation to some general scheme of things, some working ideal. Nothing in this world is isolated; all things act and react on one another, and it is by losing sight of these larger relations that would-be reformers blunder so badly.

State Care of the Aged: but few Pensions

In the forefront of the great competitive war all the youthful individual energy, initiative, and enterprise of the people will be needed; but when men become too old for the strenuous vanguard work, lighter employment must be provided for them. If individualistic enterprise fails to provide it in sufficient quantity the State must step in and organise and foster industries that shall provide useful, and, so far as possible, profitable employment for all. These industries will to some extent compete with the standard industries of the country; and where the shorter hours necessitated by the increasing age of the workers prevent

these industries fully paying their way, the rest of the community must be taxed to supply the deficiency. This would tend to check the more ruthless employers shunting their men as "too old" at an earlier age than necessary. But the main object should be to create and foster industries that will compete with standard industries as little as possible; indeed, the home market might be greatly improved for the products of our great industries. The aim should be to provide homes with allotments or garden plots for aging workpeople, so that with three or four hours of light work they could more than support themselves, and would increase the home demand for manufactured articles.

Prince Krapotkin, is his admirable work, "Fields, Factories, and Workshops: or Industry combined with Agriculture and Brain Work with Manual Work," [1] shows the enormous possibilities of intensive culture applied to small plots. By means of small glass houses, well selected seeds, and right manuring, the productivity of the soil can be so amazingly increased that England might easily produce all her own food without encroaching on

[1] G. P. Putnam's Sons, New York; Swan, Sonnenschein & Co., London.

needed parks or necessary breathing spaces. Intensive culture is just the reverse of extensive culture. It was thought that with the vast prairies, where land could be had at trifling cost, and with machinery, the food of the world could be produced so cheaply that all other modes of culture would be superseded. But even in America ideas are changing, and it is found that intensive agriculture, which aims at producing more numerous and much finer crops on small farms by scientific methods, is the culture of the future.

You cannot, however, turn the ordinary factory hand, when he begins to age, into a garden and expect the highest results without some training. The scheme I suggest for dealing with the old age problem gives additional value to boys' gardens. These give boys a thorough preliminary training which would not be forgotten even after twenty years of factory life. There should be proper training institutions to fit the old factory hands for their new occupation, and they might do as some farmers of the West are doing, work on the land while they can, and study scientific farming at the colleges during the winter.

With cheap glass houses there would be work all the year round. The heating of these

houses is a problem that needs to be grappled with. There is more than enough heat wasted to meet the need. Exhausted steam from factories might be utilised, at all events in the projected garden cities, where the factories will be in close proximity to the market gardens. There is much heat in other forms wasted that might be used, and every open fire sends more than enough unused heat up the chimney to heat a glass house. The best means for turning this wasted heat to account presents a pretty problem; but the only need is for brains. There is one very foolish form of waste from which I personally suffer a good deal. Farmers and gardeners alike collect masses of sticks, stalks, and weeds which they pile up and burn and pollute the air for a mile around; all this stuff in properly constructed furnaces would heat glass houses. So what is now a great nuisance might be turned to an inoffensive source of profit. The way we waste our forces, especially our brain forces, is deplorable.

The Gist of it all

I have been able only to glance at the general bearings of this great subject and to throw out a few hints and suggestions by the way.

But a glance only is needed to show that the proposal to provide old age pensions to allow people who can still work to live in idleness is essentially a demoralising one. Idleness, at any age, beyond what is necessary for rest from physical or mental work, is demoralising, and if people want it they must earn it by thrift and self-denial. The State has no right to grant it except in special cases as reward for special service, especially dangerous service, such as fighting for the country. But when workers drop out of the front ranks of the battle of life through age, the State is morally bound to provide them with work, so that they can earn their own living entirely or in part. No person who is physically, mentally, and morally healthy wants to be idle at any age. As the workers grow older the work should be lightened and the hours shortened, so as to give them only the amount of exercise needed for health and to give value and a sense of enjoyment to the hours of rest.

The work should be of the kind suggested; small allotments, or garden plots, for raising fruit and vegetables, poultry, etc., and light industries should be organised to provide occupation for the winter months. This right to work is a milder one than the right to subsist-

ence already conceded by English Poor Laws. But the latter are vitiated by the pauperisation of the recipients and the withdrawal of civic rights. This should be altered for the "too old," and as paying guests of the State they ought to be treated with honour.

The right treatment of the sick and infirm is another problem with which I make no attempt to deal. In nearly all welfare work measures are taken to provide for these and other cases, and in some instances for providing old age pensions. So with the inevitable spread of this work the problem will be simplified. The next chapter will bear to some extent on all these questions.

As for the "Weary Willies," those who are born tired, who will not work, should have no civic rights at all. They should work or starve. And finally many of the sick and infirm would be neither if they were provided with the pleasant, healthful, out-door occupation here suggested.

CHAPTER XIX

THE ULTIMATE PROBLEM

WELFARE work is doing admirable service not only in improving the conditions of labour, but also in bringing employer and employed into closer touch. It leads to a better understanding of their respective standpoints and does something to remove the mutual suspicion and distrust which have been the cause of so much trouble in the past. It is the task nearest to our hands and should be done with all our might. But behind this preparatory work there is the ultimate problem that must be faced sooner or later; and the sooner it is faced the less likely are we to have the position forced by crude socialistic experiments. The growing political power of labour and socialistic parties throughout the world is the disturbing factor which has to be reckoned with, and which will prevent resting at any half-way house. While the employers, with their vast reserves of capital, retain so much power they should solve this problem or put it in train for solution without waiting to have their hands

forced. By adopting and developing the systems which give most promise they will be able to take all the power out of future socialistic upheavals. There are certain systems which have the vital element of growth and which seem to combine judiciously the merits of Individualism and Socialism. At these we must give a passing glance.

Profit-sharing, Prosperity-sharing, and Co-partnership

There is some division of opinion on the intrinsic merits of profit-sharing and the extent of its success. Mr. W. H. Lever of Port Sunlight boldly challenges the principle and doubts its success in operation. He protests against the sharing of profits by labour unless it is prepared to share losses. He says:

"Labour, in effect, says to management, 'I cannot afford to stand any risks of this undertaking. Nay, I cannot risk even payment for my labour. You must treat me as the first mortgagee on the business and see that I get paid in full whether the business succeeds or fails.' And laws have been passed by government recognising the position taken up by

labour, and making it legally first mortgagee for wages with prior claim on all assets. Management has to meet this claim on the part of labour, and does so fairly and honestly by applying to labour the same rules that prevail in the case of all others who wish to stand in the position of first mortgagees. Management says, in effect, 'I think I can arrange for you to be placed in that secure position, but you must bear in mind that I shall have to go to capital, and when I say you insist on being placed in the position of first mortgagee, to be paid in full whether the undertaking in which you are engaged succeeds or fails, capital will certainly reply that, if capital has to stand all the losses, capital will most strongly object to your claiming a share in the profits, should there be any.' Labour agrees to this, and the bargain is struck, and if the undertaking prove a failure no one wastes a word of sympathy on capital. Capital wants no sympathy, being accustomed to such experiences daily."

It is well to have this aspect of the case stated. That it does not, however, cover the ground nor answer the question, "What more than wages is due to the employee from the employer?" is proved by the fact that Mr.

Lever proceeds to develop his admirable theory of " Prosperity-Sharing," outlined in Chapter XIV. Mr. Lever holds that labour should share in the prosperity of a firm, but that it should never take the form of a cash bonus, which in many cases has proved rather demoralising than otherwise. He holds that the share of profits set aside for the benefit of the work-folk should be placed in a sort of reservoir, to be used to further the social and industrial betterment of labour, — for the promotion of welfare work, the cheaper and better housing of the workers, and even the granting of pensions. But everything is done by the will of the management, and none of these things can be claimed as a right by the workers. Whatever the merits or defects of this ingenious scheme, it works admirably at Port Sunlight at present, and if it does not grapple with the ultimate problem it smooths the way to it, and may even delay its consideration for a generation or two.

Profit-sharing has been successful in many cases, and where it has failed it has generally been from the faulty application of the principle rather than from errors in the plan itself. The cash bonus is apt to be harmful, leading to its useless or worse than useless squander-

ing. But a fruitful cause of failure, as with welfare work, is the loss of the personal touch. Workers are not machines, and the system itself has not yet been reduced to a science. It requires careful supervision and attention. Men and circumstances differ, and the system, which is still in its infancy, needs adapting to the special needs of each case.

At the Conference on Welfare Work, already referred to, profit-sharing was mentioned several times, and always with approval. Mr. Krumbhaar said: "The Solvey Process Company has carried on profit-sharing to a limited extent in a system embracing the officers of the company, clerks, chemists, foremen, and sub-foremen, which has proved successful. It has worked out so that the men have shown greater care in their work and have tried to improve it. We have not yet carried the system to the workmen. That may come, and it may not, but it certainly worked satisfactorily as far as it has gone."

Mr. Dexter S. Kimball, works manager of the Stanley Electrical Manufacturing Company, Pittsfield, Mass., said: "In our shop we adopted a system which is a form of profit-sharing, and we have found it very profitable. We get more product and the workman gets

more pay, and that is a very beneficial form of profit-sharing."

In the *Journal of Social Science*, Boston (September, 1904), there is a breezy little paper by Mr. Samuel Cabot, chemical manufacturer, giving "A Seventeen-Year Trial of Profit-Sharing," which is convincing. He says:

"At a very early period in my business experience it appeared to me that the rewards ordinarily offered to the wage-earner were not such as to stimulate him to the best exertion nor foster in him the best and kindest feelings towards his employer. Even to-day is it not true that in the great majority of cases the wage-earner's only stimulus is the desire to hold his job? In fact, is not the fear of discharge the only incentive to exertion in a large majority of cases?

"Feeling as I did and still do that men can always be led more successfully than they can be driven, that Hope as leader and captain can accomplish more than Fear as tyrant and slave-driver, I set myself — ignorantly and crudely to be sure, but earnestly — to try better things. My method has grown to be essentially as follows:

"Every man who enters my employ is given

the current rate of wages for similar work. If he desires also to participate in the profit-sharing he is required to sign a paper in which he promises to do his work as quickly and as carefully as possible, remembering that the greater the yield the greater the profits, and to give me sixty days' notice before leaving me.

"On my part I promise to divide at the expiration of each six months a certain fraction of the profits among the participants, strictly in proportion to the wages of each during that period. The sum in each case is divided into two equal parts, one of which is given in cash to the employee and the other deposited in a savings-bank by me as his trustee.

"This fund in the bank is in the nature of an insurance upon the life of the employee, and is given over with interest to his executors if he dies. It, however, does not come back into my hands. If he should, for instance, refuse to give me sixty days' notice on leaving me, although he had already received an equal amount in cash upon promise to give me such notice, the money would not come back to me, but simply be distributed among the other participants at the next division. The same is true in case of his discharge for cause.

"In case of sickness I am empowered at my discretion to draw upon this fund, though in temporary cases I always put sick men on half-pay for a considerable time without recourse to their fund. I have also the right to lend him money upon it to build a house."

Mr. Cabot then gives figures to prove his facts. The system has been in operation for seventeen years with very great benefit to men and master. The increase of efficiency has been so great that while the first payments averaged about ten per cent upon the wages of each man, the last payment was twenty-one per cent. The master's profits have increased; and the morale of the workmen and their contentedness and willingness are of a high order. Mr. Cabot concludes:

"I have, for obvious reasons, not laid any emphasis upon the philanthropic side of this enterprise, especially as I am sure it can be recommended to many, if not to most, manufacturers and to their employees, purely upon its utilitarian advantages; but it is obvious that it stimulates both sobriety and thrift in workmen, and it can be made to assist men of family to build homes for themselves, thus surrounding the factory with homesteads of

men who are interested in its success and that of the neighbourhood.

"From my seventeen years' experience, therefore, I can cordially recommend profit-sharing on this or a similar plan as of marked advantage to both employer and employed."

"Through Labour for Labour"

This is the title given to a very advanced co-operative experiment, which shows a way in which the workers may become their own capitalists; but in this case it had to be started by a philanthropic capitalist, who provided for his own gradual effacement. This seems to be a weakness in the scheme which might be amended, but it is so ingenious that it should be glanced at in passing. It was initiated by Mr. J. C. Van Marken, a director of the Netherlands Yeast-and-Spirit Works, Delft, Holland. Mr. Van Marken was one of the earliest and best of the welfare workers, and his scheme of social organisation at Delft is wonderfully complete. Agneta Park, in which the model village for the workers has been built, is one of the sweetest spots I saw in Holland. He has been actuated by very high principles indeed. He says:

"It seems to me the duty of the employer to aid his subordinates, by every means at his command, his heart, his intellect, his money, to attain that highest stage which alone makes human life worth living. My conviction is that in so doing the employer will make no sacrifices. But if he needs must make them, be it from the material or the moral point of view, let him make them up to the limits of his capacity. *It is his sacred duty.*"

While labour may be right in resenting anything philanthropic, yet whatever tends to crush out this noble spirit and to force everything down to a dollar basis does an injury to the State and to humanity. That will be the "Top Notch" nation which succeeds in infusing such a spirit of devotion to a high ideal into all its children.

Although Mr. Van Marken's fellow directors cheerfully seconded all his efforts to improve the condition of their workers, he did not think it right to ask them to sanction his more advanced experiment, so he financed it himself and became practically the only shareholder. This experiment was the starting of the "Van Marken Printing Works." Mr. Van Marken found all the capital, except a few guilders supplied by a sufficient number of

holders of single shares to constitute a company. All the workmen were regarded as potential shareholders, and were given the right to confer and vote on all matters concerning the Company.

The claims of capital were regarded as limited by its amount and the risks run. This was considered as fully met by six per cent of the profits, representing a moderate interest and an insurance on the risks. This constituted a first charge on all profits.

Labour was considered to have the right to the remainder, after all contingencies had been allowed for. So all the workmen were given a "living wage"; beyond this they received a share of the profits, which were divided as follows:

"After necessary deductions for the building and machinery the shareholders (at this stage they were only potential shareholders) are to be paid for interest on capital and premium of insurance on risk 6 per cent. . . . The balance of the profit is divided in the following manner:

"25 per cent to the managing directors for their management.

"50 per cent to the workmen-shareholders,

directors, foremen, and workmen, in proportion to salary and wages received.

"3 per cent to the council for their controlling work.

"12 per cent to the founders for services rendered.

"The remaining 10 per cent of profit is at the disposal of the general meeting and will be applied to the benefit of the working classes in general, or to the special benefit of the workmen-shareholders." This may be paid in cash; but their share of the 50 per cent already mentioned is paid into the "Profit Savings-Bank," and as soon as the amount standing to the credit of a participator therein reaches the sum of 100 guilders (£8–6–8) that sum is paid to a shareholder and one share becomes the property of the said participator. In this way all the shares become the property of the workers, and the original capitalist is gradually bought out. This process had just been completed when I visited the works in September, 1904.

It was calculated that it would take twenty years for the realisation of the motto of the Company, "Through Labour for Labour," and the works to become the property of the workers; but it was accomplished in twelve years.

Careful arrangements are made to meet the case of shareholders dying and leaving their shares to others. If this process continued long enough the old conditions of capital and labour would be reproduced. But the original process is continued, and, as soon as the profits due to the actual worker amount to 100 guilders, a share is given to him, and such share has to be surrendered in their numbered order by the outside holder at that price.

This interesting experiment meets some of the difficulties of co-operation very ingeniously; but co-operation has difficulties of its own, especially difficulties of management. Although it is making splendid progress, it does not always succeed in holding its own with more individualistic enterprises. The system which seems to meet best the varied needs of commercial welfare is that of which Sir George Livesey is one of the most distinguished exponents.

Copartnership Scheme

This seems to be the best scheme yet devised for profit-sharing and for giving labour a voice in the management without impairing its efficiency, on which the very existence of a great business depends.

Sir George Livesey is the chairman of the Board of Directors of the South Metropolitan Gas Company, London. Such companies are restricted, in the interests of the public, by acts of Parliament, and their dividends must not rise beyond statutory limits. Twenty-five years ago Sir George was inspired by a happy thought for identifying the interests of the shareholders and gas consumers. The idea was adopted by Parliament, and it was enacted that " for every reduction below a fixed standard in the price of gas of one penny per 1,000 feet to the consumers an increase of one quarter per cent beyond the statutory limit was permitted in the dividends of the shareholders, and, vice versa, an increase of price entailed a corresponding reduction of dividend. It thus became a direct interest of the shareholder to serve the consumers well. The system has worked advantageously to both shareholders and consumers, making them in effect partners."

But it was felt to be incomplete until the officers and workmen were included in the partnership. This was done at the end of 1889 and has worked admirably; but it is noteworthy that such was the suspicion and distrust of the men, and such the jealousy for the power of their union, that this great boon was not con-

ferred without much trouble and a prolonged strike. This vein of unreason has gradually disappeared as the men gained wisdom and confidence in the justice and the good intentions of their employers.

The acceptance of a share of the profits was optional; men were free to accept or decline it as they thought fit. Those accepting it were required to sign an agreement for twelve months, during which they were to receive the current rate of wage. They must comply with the reasonable conditions of honesty and sobriety and do a fair day's work. There was also a proviso that any man might leave at a week's notice with the consent of the Engineer.

"For the purpose of profit-sharing," says Sir George Livesey,[1] "on the sliding scale principle (already described) 2s. 8d. per 1,000 feet was taken as a standard price of gas, and for every penny below that figure at which gas was sold the officers and workmen were to be entitled to an annual bonus of 1 per cent on their salaries and wages. The standard price was fixed at this figure in order to start with a

[1] "Paper on the Profit-Sharing Scheme," read by Sir George Livesey before the Copartnership Conference of the Labour Association, at Newcastle-on-Tyne.

bonus of 5 per cent (the actual price at the time being 2s. 3d. per 1,000, or five-pence below the standard), and to allow for a possible increase of price without reducing the bonus to a vanishing point. To give the proposal a good start, all who accepted it were credited with the amount of bonus, averaging 3 per cent, that they would have received on the above scale during the three preceding years, which, however, was not payable in cash until 1894, and was called a 'Nest Egg.'

"From the outset two objects of equal importance have always been kept in view, viz.: to attach the workmen to the company by giving them a direct interest in its prosperity beyond their salaries and wages, and to give them the opportunity to practise thrift, thus improving their position in life and making provision for misfortune and old age, — in short, to enable them to lift themselves from poverty to independence. To accomplish the second object the company gave the men the option of leaving their annual bonus (it was payable on a week's notice at any time) on deposit at 4 per cent interest. An unexpectedly large proportion of the employees from the first availed themselves of this opportunity, while some invested it in a Building Society started by the

employees, and others used it to purchase the company's stock. On the other hand, rather more than half of the profit sharers year by year withdrew their bonus every July as soon as it was declared. But it may be safely said that few of them derived any permanent benefit from the system. Such men are its weakness and often the cause of its failure."

The profit-sharing system is largely automatic; but a committee was formed to deal with all matters connected with it. This committee consists of eighteen workmen, elected by ballot by their fellows, and eighteen nominees of the directors, — the chairman of the Board being chairman of the committee. This committee had to be large in order that all classes might be represented; but it has always worked harmoniously and well. It has been allowed great latitude, and the discussions have been helpful and educative. It has promoted mutual confidence, and has brought out many valuable suggestions. The quorum is seventeen, and it is wisely provided that at least eight of these shall be workmen. Many readjustments have had to be made from time to time, such as adjusting interest on deposits to current rates, but these have always been cheerfully acquiesced in. Their confidence having

been won, the workmen always acted like reasonable business men.

After five years' working it was seen that profit-sharing was a step in the right direction, but that its full benefits could be attained only if it led to shareholding. So in 1894 the directors "proposed to increase the rate of bonus from 1 per cent to 1½ per cent on salaries and wages per 1d. on the price of gas, on condition that one-half only of the bonus should be payable in cash or left on deposit, the other half to be invested in the company's ordinary stock at the market price of the day. This proposal was accepted." The company, with part of the money deposited, buys stock when the market is favourable, so that the profit-sharing shareholders, when their stock is allotted to them, get their shares at less than current rates. This is highly appreciated by the workmen, who are keenly alive to the market value of their property.

Labour's share in the Management

"Having advanced," says Sir George Livesey, "from simple profit-sharing in 1889 to shareholding in 1894, adopting the principle of the Labour Association, . . . there remained yet the further and final step of responsibility

in management. It was felt that sooner or later, men whose savings, in many cases their whole savings, were invested in the company's stock would desire a share in the management of the property, or at least they would wish to know how it was managed; but this was not at all imminent. The ordinary stock of the company was worth over £5,000,000, while the value of the aggregate investment of the employees did not exceed £20,000. The question, however, was not one to be decided by rule of three, it being governed by larger and higher considerations. These considerations were that the sooner a beginning was made in educating workmen to understand and deal with the commercial aspect of business, the better; that the opportunity should be given them of learning to look at the employers' side of industrial questions as well as their own; that they should take a share of responsibility; in short, that they should be lifted from the status of children to that of men, from hireling to partner in the fullest possible sense."

Fears were expressed by some of the directors that workmen directors would be swayed by their class bias, and by the glib talkers among them; and that they would not rise to consider the general welfare of the Company and all its

varied interests. Those who best knew the workmen declared that such fears were groundless, and events proved them right.

"After some trouble the necessary parliamentary consent was obtained, and the act passed which gave power to elect employee directors when the aggregate amount of stock held by the profit-sharing employees exceeded £40,000 nominal value — the market value being over £56,000. This was done last year, and two workmen took their seats on the board as directors. They have been treated by the other directors as one with themselves, have done the work of directors, and have won the confidence and respect of all their colleagues; moreover, the objection that a man could not be a director one day and a simple workman under the orders of a foreman the remaining five has, so far, been shown to be groundless."

As the voting had to follow the rules of Joint Stock Companies, the most thrifty workmen had most votes; so the result was excellent. Very great interest was taken in the voting by the workmen, five-sixths of the total votes being recorded.

The results have exceeded expectations in all directions. The men work better, and work machinery to its full power, inducing the Com-

pany to apply it extensively. The consequence is that this Company can produce gas more cheaply than the others; and the Company's stock stands at a higher relative value than that of any other Gas Company.

Sir George Livesey says: "I have been in the Company's service in various capacities since 1848, — assistant to my father, then as engineer, next engineer and secretary, then director, and for fourteen years chairman. I remember well the old friendly relations when every man was known personally, and the kindly feeling that then existed; but never have the relations of employer and employed been on such a footing of mutual confidence and good-will as during the last ten years. Each feels quite free to speak to the other with the respect due from man to man on any subject, and reason rules on both sides. Of course this is a general statement, for amongst the large number of men employed there are exceptions to the rule, but their fellows do not put them forward and they have no perceptible influence. Such friendly relations have existed since profit-sharing was introduced as to induce cheerful, willing work, which has considerable, although unascertainable, money value."

Experience has shown that the one thing to avoid is dead-levelism, the indiscriminate giving of profit-shares to good, bad, and indifferent workmen. When this is done the good men get discouraged, and the others take it as a matter of course, and affairs return to their former bad condition. Only those who show themselves worthy should be allowed to sign agreements. The cash bonus should be avoided wherever possible, as it is apt to be squandered with demoralising effects.

When the system is operated intelligently, as by the South Metropolitan Gas Company, the results have exceeded all expectations. The men take an intelligent interest in their work and the welfare of the Company, and make valuable suggestions for improvements in apparatus and method. Many have obtained homes of their own, and thrift has been promoted. "The advantages the men derive from the system are educative, — a general elevation and strengthening of character in those who respond to the principle, besides the material improvement in their position, of which the accumulation of over £125,000 is a sure indication. It is also an advantage to them, as well as to their employers, that they do their work

in a happy, contented frame of mind, rather than in an indifferent spirit."

Dr. Frank Parsons of the Economic Club, Boston, recently called this the finest system in the world. It certainly goes far toward the solution of the Ultimate Problem.

CHAPTER XX

CONCLUSION

We have now travelled over a very wide field, glancing at the best means yet discovered for promoting individual and collective efficiency, and at the various movements making for industrial peace and for human betterment. We have seen that, owing to the tendency of the higher-class women to shirk maternal cares, children will have an increasing value for the State; that each healthy child is a potential mine of wealth and strength, that may be realised by thorough training if begun at the earliest age; and that, if this be neglected, the same child may be worse than a plague spot, tainting its own and coming generations with disease and criminal tendencies. So it would pay every State to surround all its children with a "cordon of care," and take as much trouble to prevent an untrained child being let loose on society as is done when it suffers from some contagious disease. It is character-forming influences, such as those of the kindergarten, that are most needed, and they cannot be brought to bear too early.

Later, manual training is most important, and it should be sufficiently vigorous to supply physical exercise, and varied enough to claim some of the interest now largely wasted on games. The kindergarten system might be extended with advantage so as to be adapted to children of larger growth; object-lessons might be made to give the basis of a scientific training. The more faculties that can be appealed to, the better, as information conveyed by sight, touch, and hearing will outlast book-learning. The love of books will follow the early grappling with realities.

In the matter of health we have seen how it is possible to attain and maintain the best of health, not only at no cost, but at a very great saving of money and of vital energy. The Fletcher system shows us how we may be always in training and be enabled to respond to any call on our muscular energies with the minimum of fatigue, and with none of that poisoning of the muscles known as stiffness. It also teaches us how to obtain the most delicate Epicurean enjoyments from the most simple foods.[1] Should this information come too late and a person be already suffering

[1] "*Eat less, but eat it more*" is Dr. W. H. Allchin's epigrammatic summary of Fletcherism.

from any of the more serious, doctor-baffling diseases, there is a means in the Heroic Cure of putting oneself under the best physician in the world — Dr. Nature, who not only makes no charge, but actually puts money in one's pocket and is always at hand. By living awhile on our stored-up food capital all the enormous supply of vital energy spent in digesting food can be used by Nature to cure the disease. The mental factor in disease is also very potent. We have an invaluable physician in the mind. By casting out fear and willing to be well we can do more for ourselves than all the doctors with all the drugs in the pharmacopœia. In fresh air and in deep breathing we have the best of all tonics and medicines. From all the lines of our investigation the plea for the "Simple Life" receives manifold endorsement.

In dealing with collective efficiency we found among the higher industrial developments the Suggestion System, initiated by Mr. John H. Patterson, to be of quite exceptional value and to have possibilities for good not yet realised. It turns the whole organisation into a world-wide "Intelligence Department," and focuses thousands of brains on the problem of bettering the business, and has turned it, in the case

of the National Cash Register, into a "5,000 Brain Power Organisation." This tapping the brains of all the workers has not only proved of great value to every business where it has been tried, but also meets a need in human nature. There is always a craving for some gentle excitement, a looking forward to possible prizes, the working out of problems, and the taking part in grand functions that have the excitement and the surprises of a lottery. This craving at present is largely met in ways that are apt to be pernicious, or in ways in which all the brain powers employed are wasted. So many journals give prizes for the solution of puzzles or problems that waste nervous energy enough for a week's work. Betting on sporting events, gambling, and other feverish excitements are equally wasteful and more demoralising. The Suggestion System, as already pointed out, meets all these needs in a legitimate and healthy way, stimulating the inventive faculties and concentrating them on the work in hand. This gives additional interest in the work, and there is always the chance of a prize at one of the grand half-yearly functions. For these and many other reasons the Suggestion System should be universally adopted.

In welfare work we found one of the most promising movements of the time, fraught with manifold beneficent possibilities. It uplifts all the conditions of labour, tends to industrial peace and mutual understandings, and a better all-round feeling between employer and employed. The better feeling between them is an inestimable boon, as fuming and fretting, antagonism and resentment, bring about the most unwholesome and unprofitable frame of mind in which it is possible to work. Welfare work has liberated a host of beneficent activities, educational, economic, and recreative; and, as it has been shown to pay all who have given it a trial, it is bound to spread and grow until it covers the whole of the industrial field. It will set a standard that the meanest employer will not dare to disregard.

Welfare work prepares the way for the settlement of the ultimate problems that must be grappled with in the future. These concern the reconciliation of the interests of capital, labour, and management. Mr. W. H. Lever is quite right in treating it as a threefold problem instead of a twofold problem — capital and labour — as without good management labour and capital may come to grief. Capital and labour are abundant and common

enough, but management is a fine art, and the supreme manager is as rare as any other form of genius.

The examples given of profit-sharing, prosperity-sharing, and co-partnership show the ways in which these problems are being tentatively solved, and their full solution is hopefully near.

Some of these great industrial concerns with their world-wide ramifications are wonders of organisation. They are scientific up to a certain point; beyond that, where new departures have to be made to meet new conditions, they are wonders of art, of skill, and foresight.

When we view these triumphs of forethoughtful management it is difficult to avoid contrasting them with the slipshod, wasteful methods of even the best governed nations or States. Party government, the system of the most advanced nations, is wofully wasteful and demoralising. Instead of getting a long pull, a strong pull, and a pull all together, for the welfare of the State, we get a paralysing tug of war between the " ins " and the " outs." Party misrepresentations so transparent as to insult our intelligence are poured forth day by day with the coolest effrontery, the aim being not to get at the truth, but to damage the

other party. It is difficult enough to get at the truth of any proposition, as everything looks so different from different standpoints, and when things are looked at in the interests not of the State but of party, confusion becomes worse confounded.

The absence of a generally accepted working ideal adds to the confusion of tongues. Affairs are regarded too narrowly, from too low a standpoint, and with little or no comprehension of the great world-movements which flow on to their appointed goal as resistlessly as fate. Gauge these tendencies, harness these currents, and your work will increasingly prosper; ignore or oppose them, and you become a straw on the stream, borne along helplessly to a goal you cannot see.

Another defect of party government is that one half of our presumably best statesmen and administrators are among the "unemployed" much of the time. As soon as a minister has been long enough in office to master the manifold details of his department the "outs" come in and he is shunted to rust and forget on the opposition benches. This throws undue power into the hands of the permanent officials, who, with their conservative routine and red-tape, hold the threads of the complex business. The

minister is dependent upon them, and the real rulers shift responsibility to the figurehead. Thus representative government becomes a farce. Fancy a great business company shunting its managers as soon as they have mastered their work, and condemning them to be mere outlookers while novices master the complicated machinery of management. Then as soon as they are rusty and the novices have mastered the work the latter are shunted in turn and the rusty managers gather up the reins once more!

Then again, we are practically governed by amateurs; the very thought of professional politicians makes the Britisher squirm. This shows how utterly at sea we are, and how greatly we need to push on to the next stage of political evolution. What this will be, it is difficult to guess; but it is manifest that States will have to be organised scientifically on lines somewhat analogous to these great business organisations.

We need something analogous to the Suggestion System to focus the best mental energies of all on the problems of good government. Those who could make the best suggestions are in the position of the workman of old who dared not make a suggestion for

fear of being told to mind his own business, or of having his suggestion credited to someone else.

We need, moreover, a thoroughly organised system of promotion from top to bottom. Those who aspire to the highest places should begin with the lowest, and every upward step should be the reward of good work. In exceptional cases only should any one be eligible as a member of parliament until he has earned the promotion by a record of good work done on local councils, in municipal affairs. Mr. Chamberlain won his spurs in the Birmingham Municipal Council, and that was the best of all discipline. By this means, by the time they were eligible as legislators men would no longer be amateurs, but highly trained men; and scrupulous honesty should be an essential condition of advancement.

Our business men are teaching us better than the political economists, as they have come face to face with realities, and have been taught by dearly bought experience. Their words appeal to business men. The fact that some of the most strenuous, up-to-date, "lightning" firms are continually preaching the value of thorough honesty and straight dealing, and the dollar value of a high morale, will do more

to discredit the moral obliquity of the smart set in business than a thousand sermons. The Japanese are showing us the value of a high national morale, and the "top notch" nation of the future will be the one having the highest ideals. Dishonesty, even when bedecked with flowery titles, is a disease, whether in nations or individuals. This is dimly realised in the innermost heart of the great republic; they wish for an able man as President, but the first condition is that he shall be an honest one. So in the system of national promotion I am advocating, the first condition of promotion should be ability combined with straightness, incorruptibility, and no one should be eligible as a legislator who has not been tried in the fire. People are apt to mislay their conscience when dealing with government or matters pertaining to it. It ought to be understood that in cheating government we are cheating millions of men instead of one, and this fact increases rather than lessens the crime. These facts need emphasis not so much on moral grounds as on the ground of efficiency. All this looseness and moral obliquity means bad business, means inefficiency. Our system is hampered by innumerable checks and counter-checks to prevent dishonesty; their real effect

is to relieve public servants of responsibility. When matters go wrong nobody is to blame.

My reason for touching on this state of affairs is that it all bears on human betterment. I believe we have much to learn from the great business organisations at which we have been glancing. If a few of these great organisers could have a free hand for a time in re-organising public departments there would be such a cleansing of the Augean stables as would dwarf the labours of Hercules, and we should get things better done at one-third of the cost. In England, to be sure, there are many great business men in Parliament; but they are smothered there by the hoary traditions of the place, the flood of talk, and the red-tape which binds them hand and foot. In addition, there is the paralysing system of party government, in which they are opposed at every step by men as able as themselves, not because the step is wrong, but because it is opposed to party interests. When the English secure men like Admiral (Admirable) Sir John Fisher and Lord Kitchener, and give them a little freedom, good work is done. How long are we to consent to be governed by party conflict, with its demoralising train of misrepresentation, instead of by co-operation on business lines?

I sometimes fancy that the answer to this question will come from the most unexpected quarter. The stupendous organisations known as trusts and combines present one of the most momentous problems of the time. They will grow just as fast as they can be thoroughly organised and the problems of management can be solved. In time their power will be so great that there will be only two alternatives; they will annex the State, or the State will have to annex them! In either case they will become huge public departments; then all the other governmental departments will have to be brought into line with their business-like methods, and all will have to be scientifically organised.

It was this idea in my mind that induced me to say that the trusts were unconsciously doing more for the socialists than the socialists could do for themselves!

The task of the time is the perfecting of all forms of organisation. Employers and employed have organised extensively for war against each other; now we need organisations to promote industrial peace. The National Civic Federation, which has its headquarters in New York, is the best type of such organisations. Mr. Ralph H. Easley, the chairman

of the Executive Council, has been one of the moving spirits in this beneficent movement, and has recently been giving an admirable summary of its work and objects. He tells us of the large number of strikes, lockouts, and boycotts it has already prevented, and the number of trade agreements it has been instrumental in getting adopted. The excellent work done by the Welfare Work department has already been touched upon. Of its aims Mr. Easley says: "The entire movement represented by the National Civic Federation aims to bring into co-operation the sane and patriotic leaders of the forces of employer and employed, and of the interested, but too often forgotten and forgetting third party, the general public. Its purpose is constructive, not destructive. It would develop, through the agencies here described, the latest and best elements in the organisations of capital and labour, and it would keep awake a wholesome public concern on the profit of the one, the welfare of the other, and the prosperity of all, through the diffusion of an intelligent understanding of economic laws."

That is the right spirit. There are organisations of employers formed to fight all demands of labour and spurning conciliation. They may

be safely left to the teaching of events. There is a tide in the affairs of men, but it is not going their way. The National Civic Federation has chosen the better part.

It has been my aim throughout to keep everything on a business basis; I have steadily insisted on the dollar value of welfare work and the other movements; I have urged their adoption because they *pay;* but there can be little doubt that dollars won by these uplifting agencies carry compound interest on the higher planes.

APPENDIX A

"STUDIES IN CHARACTER BUILDING"

I HAVE just received a copy of Mrs. Kellogg's new book under the above title, to which I have long looked forward with great interest. It is a work that should be in the hands of all those who have to do with children — and those who have n't. It is so full of serene wisdom, insight, and sympathy. The author is the wife of Dr. J. H. Kellogg, of the famous Battle Creek Sanitarium, and gives us the results of his ripe wisdom in these matters as well. It is issued by the Good Health Publishing Company, Battle Creek, Michigan. When I remember the results of Dr. and Mrs. Kellogg's training of all sorts and conditions of future men and women I am prepared to accept their words as the most weighty that could be uttered on this momentous subject. Mrs. Kellogg gives not only the results of her own experience, but also the brightest thoughts of the character-builders who have done most for rising generations.

The motto of the book is from Horace Mann: "Where anything is growing, one formatory is worth more than a thousand reformatories." In the chapter headed "Held in Trust" we are told that during the first seven years the mind receives more impressions than in all the after years; so they offer a wonderful opportunity for parents to preoccupy the soil with good so that there will be no room for evil. Training cannot be begun too early. When an anxious mother asked a wise teacher when she ought to begin to train her three weeks old child he replied, "Madam, if you have not already commenced to train him, you have lost three priceless weeks." Personally, I have long held this view, and have seen numberless evils resulting from its neglect.

Mrs. Kellogg places the necessary "Parents' Equipment" very high. As children are so imitative, parents should lead the way. Foremost among the essentials of the parents' equipment is endless patience, then self-control and loyalty to truth. Keep your word with children though the heavens should fall, — to vary the Latin proverb. Other high qualities are needed; indeed, to train children is to train oneself.

The value of Froebel's "Come let us live

with our children" is emphatically insisted upon. It must be a sympathetic living with them in every way, — seeing with their eyes, feeling with their feelings, and adopting their standpoint as much as possible. Above all, we should answer the thousand and one questions they ask; never drive them in on themselves and lose their confidence. I know that the best part of my education came through asking questions, as I then obtained the knowledge I wanted and *when* I wanted it. To cram children with knowledge they do not want just then is to sicken them with it. Mrs. Kellogg wisely urges that "Do" should take the place of the everlasting "Don't." When they make a request to be allowed to do something that might be dangerous, instead of denying that request raise a counter attraction and start them on a new track.

Lure the child upward by praising every good thing he does rather than by always scolding his faults. Train their vigorous impulses into right channels instead of opposing them. "The force even behind a bad temper becomes noble when turned into the right channel. Self-will and obstinacy rightly educated are transformed into courage of conviction and strength of purpose."

The paramount importance of obedience is insisted on. It must become a habit, and cannot be begun too early. There must be absolute consistency; not a severe discipline one day and laxity the next. Commands must never be above a child's strength. Requests should take the place of commands whenever possible. There should be no conflict of wills, no controversy. A gentle punishment should follow disobedience with the passionlessness of a natural law. It should be shown that all commands are for the child's own good, and that parents themselves are subject to higher laws which they have to obey or suffer. As few commands as possible should be laid on the child. Wisdom, tact, endless patience, and a special study of each case are necessary to train strong wills in the way they should go.

All departments of child-training and character-building are treated with rare wisdom and insight; and throughout example is shown to be better than precept. The beginning of wisdom in this work is to discern the boundless possibilities of good or evil presented by every child. To develop the good and repress the evil brings a double benediction on trainer and trained.

APPENDIX B

THE NEED OF A LEGION OF HONOUR IN AMERICA

WHEN institutions outrun human nature, and deep-lying instincts find no outlet for their legitimate expression, they will make channels for themselves in undesirable ways. As Socialism is the swing of the pendulum from the crudities of unchecked individualism, so, I believe, Democracy is the swing to the other extreme from the evils of Aristocracy. True wisdom would extract the good from both; and no progressive nation should allow itself to be ruled by the dead hand of an outgrown ideal.

Human nature is balked in its truest and highest instincts unless it has legitimate means of honouring distinguished service to the State. People need the means of expressing their gratitude, and of honouring those who have served them; they also need the stimulus of such rewards to strive for. Human nature revolts against dead-levelism; and there is a gratifying picturesqueness about a decorated class. When those decorations have been fairly

won, and every man and woman in the State[1] has the chance of winning them by noble public service, there is no valid reason why any nation, however democratic, should deny itself so valuable an institution.

Where these legitimate and useful instincts are balked by faulty institutions, they will find expression in undesirable ways. We see so many of America's wealthy daughters marrying members of European aristocracies. We see numerous attempts to form little aristocracies of their own, the qualification being descent from the pioneers of the "Mayflower," or in another case, from those who fought in the Revolution. I have met members of these aristocratic bodies abroad wearing decorations that an English nobleman would not wear except on special occasions. If the State will not decorate its worthy children they will decorate themselves. Then, again, the most democratic of the democratic — the wage-workers of the United States — bestow the honour of knighthood on themselves; they are the "Knights of Labour" and there are "Knights of the Loyal Guard"; The ladies, God bless them, go one (or several)

[1] Obviously I use the word "State" in its broadest, its abstract meaning, and not with reference to States in the Union.

better; not content with the simple title of "Duchess" "Countess," or "My Lady," they are "King's Daughters," nothing less than Princesses, and they doubtless grace the title better than some of those born in the purple.

This craving for distinction, this protest against the drab monotony of dead-levelism, is human nature overleaping the barriers of imperfect institutions; and it is curious that the long heads of America should have overlooked its meaning. Swayed by the ideas of the French Revolution, Americans acclaimed the Rights of Man; and when the slaves were freed they were given the full rights of citizenship. This is now seen to have been a big blunder; and it showed that the ideas of the French Revolution were touched with the reactionary madness of extremes, and should have set men thinking, so as to discern the need of a new and truer ideal.

From the business standpoint, we have in the Suggestion System a most valuable stimulus to higher endeavour. In the system of promotion for noble service rendered, there is another invaluable means of bringing the best men to the top, and of rewarding them with the title of President, Vice-President, Manager, etc. A nation must have an aristocracy, or it will be

bossed by a plutocracy. The fault with the old-world aristocracies is their hereditary character. A man may have been ennobled for really noble service to the State, and his son, who may have rendered a disservice to the nation by his dissoluteness and his demoralising idleness, will yet wear the title won by his father, and its national value is gone. All that is valuable, or legitimate in the democratic claim is met by giving every citizen an equal chance and equal justice. Every citizen should be a possible President, and if there is a decorated order of merit it should be open to all, and the rich man should have no advantage in the race over the poor man. Merit, good service in every way that helps forward the nation and humanity, should be the only road to these distinctions.

The French Legion of Honour offers a model of an institution that would meet the very real needs of Americans for rewarding their distinguished citizens, offering rewards that would stimulate others to do beneficent work. This order of merit was instituted by Napoleon in the interests of republican principles and the laws of equality, as all were eligible for the honour. It has had a full century's trial, and many changes have been made; so it offers the practical pointers for starting it on improved

lines. Its good points could be taken and improved, and its weak points eliminated. The classes could be arranged to meet the newer needs, and the circumstances of the new world; but the stars, crosses, ribbons, and titles should be retained and improved upon, and every care should be taken to make membership a real distinction.

Naturally there would be numerous abuses to be guarded against, but none pass the wit of man to prevent. Such an order of merit, an aristocracy of real noble men, would meet a deep-seated need of human nature; and it might be made an invaluable stimulus to high endeavour.

APPENDIX C

A NEW AND WORKABLE SCHEME OF LAND NATIONALISATION

We are only playing at political economy until this fundamental problem is solved on practical lines. Its vital importance is recognised by all economists, but the solutions proposed are too drastic, and would require the forces of a revolution to carry them. The changes proposed are on too large a scale, and would cause a general unsettlement of a quite surprising number of interests that cluster around the land. The only practical plan is to make small beginnings and let them grow, so that the various involved interests may gradually readjust themselves to the changed and changing conditions. The land should be nationalised or municipalised, by a slow automatic process that would bring it about as a sinking fund eats up a debt. My scheme is designed for Great Britain; but the problem will press for solution everywhere sooner or later.

It is useless to apply the laws of abstract justice to such a complicated case. There has been

endless land-grabbing from time immemorial, and a restitution and refunding of the appropriated revenue would alone meet the demands of abstract justice. But this is impossible, owing to the complexity of the case, and any attempt to that end would work injustice on many innocent holders.

The only workable plan is one that should gain the consent of the far-sighted landlords, and meet the current business notions of fair-play. The consideration that would weigh with wise landlords is that they would secure better terms now than at any future time. The steady growth in the power of the socialists and of labour parties the world over is the one portentous sign of the times; and the longer the settlement of this question is delayed, the sterner will be the reckoning.

In a scientifically organised State the land would belong to all, and the rent which now goes into private pockets would pay all the expenses now met by rates and taxes; so every penny we pay in that way is the price of the original folly of parting with national property. The germinal idea of the plan by which this may be rectified is roughly this: —

A short time ago the English Chancellor of the Exchequer took fourpence off the Income

Tax. Had this been continued for another year, nobody could have felt it as a very grievous burden; yet it would have produced eight or ten millions surplus. Suppose this had been used to buy land already on the market at current rates. This land would bring in about £400,000 a year (more or less; the figures are only for illustration). The fourpence could have been taken off the Income Tax; and the Government would have had this £400,000 as rent. One-half of this could have been devoted to revenue purposes, lightening taxation to that extent; and the other half used to buy more land.

The Government would have thus an ever-increasing fund to lighten taxation on the one hand, and to buy more land on the other. The Government being in the field as a purchaser would at once send up land values; holders would stiffen, and hold out for fancy prices. This could be met in various ways. One plan would be to take all the land needed at present valuation, deducting the increase caused by the national purchases. This would savour of coercion and would raise objections; but it would be eminently just, as the nation would reap by this means the enormous unearned increment caused by the Government's buying, and the

increase in value of agricultural land when the new fiscal policy is adopted, as it will be sooner or later. In this difficult matter we must consent to be generous as well as just.

Another and more feasible plan would be to put a very slight tax on the increased selling value of land; this would lessen taxation in other directions, and give the Government more funds to meet the increased price put on land. The attempts now being made to tax ground values already concedes this principle. The Land Nationalisation Society (London) recently passed a resolution expressing the "desire to see local bodies endowed with powers to levy a moderate tax upon land values, and to purchase land at the price declared to be its value for purposes of taxation."

Other difficulties would arise later when the question of entail, and the thousand and one complications of landholding come up, but they could be met as they occur.

What I have pictured the Government doing on a big scale, could be done, and done better, by the great municipalities on a smaller scale as opportunity occurred. By a small initial effort the scheme could be started and left to grow. The ultimate aim of the State is to become the sole ground-landlord, and to appropriate the

unearned increment which now goes into private pockets. A very small first sacrifice would suffice to start it, and it would be a sort of mustard seed planted that would silently grow to heaven-kissing proportions. A single millionaire might begin it, and raise a monument to himself such as no conqueror has ever earned; or it might be initiated with very much less effort than the " settlement " (only the beginning of other difficulties) which the Irish land question is costing.

The great merit of this scheme is that it is on purely business lines, and might be started with the first surplus the Government has; such as that of this year. It would require no violent agitation, and no big Parliamentary majority; and it conflicts with no current notions of what is right and just. It might be begun with no special mandate, any more than Beaconsfield required for the purchase of the Suez Canal shares which turned out such a splendid investment for the nation. And that was a small matter compared with the beneficent effects that would flow from the scheme here proposed.

APPENDIX D

MINISTERS OF HUMANITY

AN INTERESTING EXPERIMENT IN SCHOOL MANAGEMENT

AMONG the many educational experiments prompted by the eager excelsior spirit of the Americans, that initiated at the Nashville Agricultural and Normal School is especially interesting. Under the able leadership of Professors E. A. Sutherland and Percy T. Magan, the troublesome problems of school management are being simplified by means which relieve the teachers and give the pupils valuable additional training.

This institution, which received some of its inspiration from Battle Creek, is a training school for what might be called ministers of humanity. All are pledged to serve the race, and to minister to its manifold needs. The education is free, and everything is done to soften the tyranny of King Dollar. Work is exalted and idleness is condemned as a soul and body-killing canker. Children of the millionaire are " levelled up " to those of the poor by

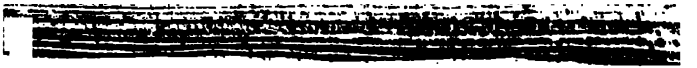
the ennobling dignity of work. Responsibility is early thrown on all, and every means taken to draw out their power of managing and of dealing with practical affairs.

One of the notable new departures came about in this way. When the question of appointing a new preceptor for the dormitory was raised one of the students remarked that it seemed anomalous that those whose lives were to be devoted to teaching and helping others should need someone to be paid to keep them in order. Professor Magan was struck with the suggestion, and declared it should be tried. A committee of three was at once appointed, who selected one of their number to preside over the dormitory, to keep order and enforce discipline. The success was manifest from the first, and on the return of Professor Sutherland the fullest extension of the principle was decided upon. The whole school was turned into a miniature Congress, a Committee of the Whole, in which all were put on a footing of voting equality, the sole condition being that the president should in all cases take the chair. Subcommittees were appointed to take charge of the various departments and to be responsible for their smooth working. By-laws were suggested and discussed in full committee.

Amendments were made when needed; and the sub-committee carried them into effect. The plan has worked to admiration. Whenever any student has to be disciplined (a rare occurrence) he feels that he helped to make the rule, which he will take his turn in administering; consequently he submits with a good grace. This takes a burden of disagreeable responsibility from the teachers, and gives the students an admirable training in managing the departmental work. An early question discussed was the right relation of the sexes, the rules which should govern the conduct of male and female students towards one another. This thorny question was settled in a way which commanded the ready assent and obedience of all. Law and order have in all cases been respected and maintained to the satisfaction of all, while the cost and friction of a paid overseer were saved.

In the feeding department the young women take turns in cooking and doing all the work of the kitchen, buying all the provisions from the store of the institution, paying themselves a moderate wage, and seeing that their books balance. In this way they are taught the whole management of a house. They have also an insight into the composition of foods, as the students soon complain if they do not get the

proper proportions of the different elements for right nutrition.

A fairly complete manual training is given, and the practical work is paid for, thus enabling the poorer students to pay their way.

Practical altruistic work begins early. It often happens that a farmer dies and leaves his widow with her family to manage the farm as best they can. In such a case the students ask for a day off, and they spend it in ploughing the widow's land or doing other hard work, so that she and her children can do the rest. Students are encouraged to go out and establish similar schools in distant villages, teaching the same rational principles of healthy physical and mental training. The aim is always to begin modestly and allow healthy growth.